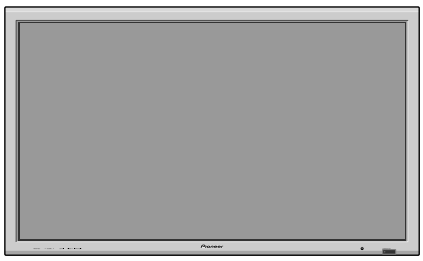
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Service Manual



PDP-424MV

ARP3253

PLASMA DISPLAY

PDP-424MV

PDP-42MVE1

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Model	Type	Power Requirement	Remarks
PDP-424MV	LUC	AC120V	
PDP-42MVE1	LDFK	AC110-120V/220-240V	
PDP-42MVE1	TXGB	AC110-240V	



For details, refer to "Important Check Points for good servicing" .

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SAFETY INFORMATION

This service manual is intended for qualified service technicians ; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING
This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.

Health & Safety Code Section 25249.6 - Proposition 65

NOTICE
(FOR CANADIAN MODEL ONLY)
Fuse symbols (fast operating fuse) and/or (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE
(POUR MODÈLE CANADIEN SEULEMENT)
Les symboles de fusible (fusible de type rapide) et/ou (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

SAFETY PRECAUTIONS

NOTICE : Comply with all cautions and safety related notes located on or inside the cabinet and on the chassis.

The following precautions should be observed :

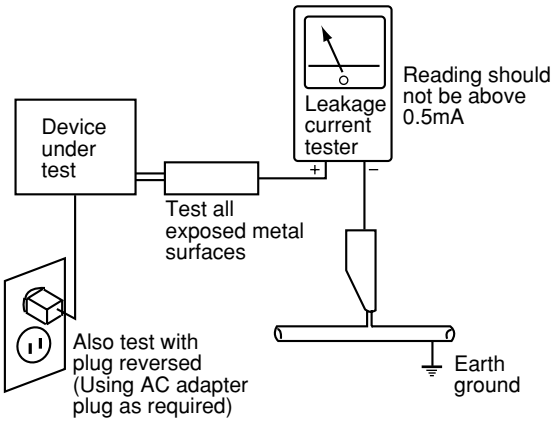
1. When service is required, even though the PDP UNIT an isolation transformer should be inserted between the power line and the set in safety before any service is performed.
2. When replacing a chassis in the set, all the protective devices must be put back in place, such as barriers, nonmetallic knobs, adjustment and compartment covershields, isolation resistor-capacitor, etc.
3. When service is required, observe the original lead dress. Extra precaution should be taken to assure correct lead dress in the high voltage circuitry area.
4. Always use the manufacture's replacement components. Especially critical components as indicated on the circuit diagram should not be replaced by other manufacture's. Furthermore where a short circuit has occurred, replace those components that indicate evidence of overheating.
5. Before returning a serviced set to the customer, the service technician must thoroughly test the unit to be certain that it is completely safe to operate without danger of electrical shock, and be sure that no protective device built into the set by the manufacture has become defective, or inadvertently defeated during servicing. Therefore, the following checks should be performed for the continued protection of the customer and servicetechnician.
6. Perform the following precautions against unwanted radiation and rise in internal temperature.
 - Always return the internal wiring to the original styling.
 - Attach parts (Gascket, Ferrite Core, Ground, Rear Cover, Shield Case etc.) surely after disassembly.
7. Perform the following precautions for the PDP panel.
 - When the front case is removed, make sure nothing hits the panel face, panel corner, and panel edge (so that the glass does not break).
 - Make sure that the panel vent does not break. (Check that the cover is attached.)
 - Handle the FPC connected to the panel carefully. Twisting or pulling the FPC when connecting it to the connector will cause it to peel off from the panel.
8. Pay attention to the following.
 - When the front case is removed, infrared ray is radiated and may disturb reception of the remote control unit.
 - Pay extreme caution when the front case and rear panel are removed because this may cause a high risk of disturbance to TVs and radios in the surrounding.

Leakage Current Cold Check

With the AC plug removed from an AC power source, place a jumper across the two plug prongs. Turn the AC power switch on. Using an insulation tester (DC 500V), connect one lead to the jumpered AC plug and touch the other lead to each exposed metal part (input/output terminals, screwheads, metal overlays, control shafts, etc.), particularly any exposed metal part having a return path to the chassis. Exposed metal parts having a return path to the chassis should have a minimum resistor reading of 0.3MΩ and a maximum resistor reading of 5MΩ. Any resistor value below or above this range indicates an abnormality which requires corrective action. Exposed metal parts not having a return path to the chassis will indicate an open circuit.

Leakage Current Hot Check

Plug the AC line cord directly into an AC power source (do not use an isolation transformer for this check).
Turn the AC power switch on.
Using a "Leakage Current Tester (Simpson Model 229 equivalent)", measure for current from all exposed metal parts of the cabinet (input/output terminals, screwheads, metal overlays, control shaft, etc.), particularly any exposed metal part having a return path to the chassis, to a known earth ground (water pipe, conduit, etc.). Any current measured must not exceed 0.5mA.



AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE SET TO THE CUSTOMER.

PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in PIONEER set have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.
Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.
The use of a substitute replacement component which dose not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire or other hazards.
Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

⚠ CAUTION

• Observe the caution matter, without fail



• The caution matters of ⚠CAUTION given in the instruction manuals, etc., must be observed, without fail.

• Do not give shocks and vibration.



• The panel surface (display plane) of the filter and the PDP module is made of glass. If any shocks or vibration is applied, it may be broken and the scattered glass chips will be a cause of injury.

• Do not put anything.



• Do not put anything on the product. Otherwise, this can be a cause of injury as a result of falling down or dropping caused by imbalance.

• Transportation must be done by enough personnel.



• The product is heavy. In the case of transportation, unpacking, or packing, more than two persons should do it (four persons for a product of 50-inch or larger) by supporting the top and the bottom of the product.

■Miscellaneous caution matters

(1) This product uses highly integrated semiconductor parts. Since these parts are fragile to electrostatic charges, earth bands should be used for handling. The product should be handled where measures have been taken against electrostatic charges.

(2) For this product, the PDP modules and the PWBs are repaired by replacement in a unit. Therefore, the units of the PDP modules and the PWBs must not be repaired or disassembled. Otherwise, the validity of warranty will be lost.

(3) If this product is used for the fixed character display or the like as in the case of a character display board, a phenomenon of burning (not warranted) will occur. Burning is a phenomenon that the unevenness in the brightness is caused in the display. In such a case, the brightness in the section where the integrated display time is longer becomes lower than the brightness in another section where the integrated display time is shorter. This phenomenon is in proportion to the integrated display time and the brightness. For this reason, to relieve this difficulty during servicing, do not use any still picture, but use a display by motion pictures of a video or the like. In addition, use "FULL" for the screen mode and avoid using any display by "NORMAL", "TRUE", or MULTI SCREEN like side by side etc. If it is necessary to use only a still picture for unavoidable reasons, use a burning relief function such as "PLE LOCK", "ORBITER", "SCREEN WIPER", etc.

(4) When a PDP module is operated after a long time of storage, it may encounter a difficulty like a failure in displaying a screen or unstability according to the condition of storage. In such a case, the PDP module should be incorporated in the product and aging treatment should be carried out for about two hours (all screen display).

(5) Sulfides will deteriorate the PDP module and this is a cause of malfunction. Therefore, it is absolutely prohibited to put any vulcanized rubber or a material containing sulfur in the vicinity of the PDP module.

(6) When taking out a PDP module from the maintenance package box, do it slowly so that the

panel surface does not get any shock or stress.

(7) If one touches the connector of the flexible cable exposed to the rear side of the PDP module, there is danger of causing a poor contact. As such, it must be handled with utmost care. In addition, the flexible cable is very weak in mechanical strength. Therefore, this cable must not be touched during handling.

(8) The panel surface of the filter and the PDP module is easy to be hurt. These components should be handled very carefully not to press or rub them with a hard thing. Never put them on a hard thing with the panel surface faced downwards.

(9) When the panel surface of the PDP module is contaminated, gently wipe off the contaminant with a piece of soft dry cloth. Liquid-state contamination can be removed by lightly pressing it, without rubbing it. If it is difficult to remove the contamination, use a piece of cloth soaked with a neutral detergent. The cloth for wiping off should be clean. Never use the same cloth repeatedly. If a cleansing detergent or water drops should enter the module interior or be attached to the module surface other than the display plane at the time of cleaning, this will give rise to the destruction of the product when the product is energized.

(10) Refer to the "Instruction Manual" in regard to contamination in the filter and the cabinet.

(11) When transporting this product, use the packing materials specified in the list of parts. Once used, such packing materials should not be used again.

(12) This product is composed of a variety of parts, such as those made of materials like glass, metal, plastics, etc., and those like a lithium battery (circuit symbol of the MAIN PWB: BA9501), etc. Therefore, when abandoning this product, this should be done in accordance with the relevant law of the nation or an autonomous body.

CAUTION: Risk of Explosion if Battery is replaced by an Incorrect Type. Dispose of Used Batteries According to above the Instructions.

[Important Check Points for Good Servicing]

In this manual, procedures that must be performed during repairs are marked with the below symbol.
Please be sure to confirm and follow these procedures.

1. Product safety



Please conform to product regulations (such as safety and radiation regulations), and maintain a safe servicing environment by following the safety instructions described in this manual.

① Use specified parts for repair.

Use genuine parts. Be sure to use important parts for safety.

② Do not perform modifications without proper instructions.

Please follow the specified safety methods when modification(addition/change of parts) is required due to interferences such as radio/TV interference and foreign noise.

③ Make sure the soldering of repaired locations is properly performed.

When you solder while repairing, please be sure that there are no cold solder and other debris.
Soldering should be finished with the proper quantity. (Refer to the example)

④ Make sure the screws are tightly fastened.

Please be sure that all screws are fastened, and that there are no loose screws.

⑤ Make sure each connectors are correctly inserted.

Please be sure that all connectors are inserted, and that there are no imperfect insertion.

⑥ Make sure the wiring cables are set to their original state.

Please replace the wiring and cables to the original state after repairs.
In addition, be sure that there are no pinched wires, etc.

⑦ Make sure screws and soldering scraps do not remain inside the product.

Please check that neither solder debris nor screws remain inside the product.

⑧ There should be no semi-broken wires, scratches, melting, etc. on the coating of the power cord.

Damaged power cords may lead to fire accidents, so please be sure that there are no damages.
If you find a damaged power cord, please exchange it with a suitable one.

⑨ There should be no spark traces or similar marks on the power plug.

When spark traces or similar marks are found on the power supply plug, please check the connection and advise on secure connections and suitable usage. Please exchange the power cord if necessary.

⑩ Safe environment should be secured during servicing.

When you perform repairs, please pay attention to static electricity, furniture, household articles, etc. in order to prevent injuries.
Please pay attention to your surroundings and repair safely.

2. Adjustments



To keep the original performance of the products, optimum adjustments and confirmation of characteristics within specification.
Adjustments should be performed in accordance with the procedures/instructions described in this manual.

3. Lubricants, Glues, and Replacement parts



Use grease and adhesives that are equal to the specified substance.
Make sure the proper amount is applied.

4. Cleaning



For parts that require cleaning, such as optical pickups, tape deck heads, lenses and mirrors used in projection monitors, proper cleaning should be performed to restore their performances.

5. Shipping mode and Shipping screws

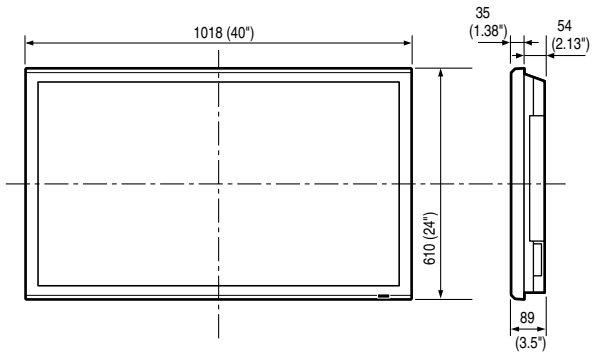


To protect products from damages or failures during transit, the shipping mode should be set or the shipping screws should be installed before shipment. Please be sure to follow this method especially if it is specified in this manual.

SPECIFICATIONS

• PDP-424MV/LUC

Screen Size	36.3"(H) 20.4"(V) inches 921(H) 518(V) mm diagonal 42"
Aspect Ratio	16 : 9
Resolution	853(H) 480(V) pixels
Signals	
Synchronization Range	Horizontal : 15.5 to 110 kHz (automatic : step scan) Vertical : 50.0 to 120 Hz (automatic : step scan)
Input Signals	RGB, NTSC (3.58/4.43), PAL (B,G,M,N), PAL60, SECAM, HD*1 , DVD*1 , DTV*1
Input Terminals (VIDEO1 and PC1 can also be used as OUTPUT terminals)	
PC	
Visual 1 (Analog)	mini D-sub 15-pin 1
Visual 2 (Analog)	BNC (R, G, B, H/CS, V) 1*2
Visual 3 (Digital)	DVI-D 24-pin 1*3
Video	
Visual 1	BNC 1
Visual 2	RCA-pin 1
Visual 3	S-Video: DIN 4-pin 1
COMPONENT	
Visual 1	RCA-pin (Y, PB[CB], PR[CR]) 1*1
Visual 2	BNC (Y, PB[CB], PR[CR]) 1*1, *2
Audio	Stereo RCA 3 (Selectable)
RS-232C	D-sub 9-pin 1
Sound output	8W+8W at 6 ohm
Power Supply	AC120-240V 50/60Hz
Current Rating	4.5A (maximum)
Power Consumption	270W (standby 0.9W)
Dimensions	40 (W) 24 (H) 3.5 (D) inches 1018 (W) 610 (H) 89 (D) mm
Weight	62.8 lbs / 28.5 kg (without stand)
Environmental Considerations	
Operating Temperature	0°C to 40°C / 32°F to 104°F
Other Features	Motion compensated 3D Scan Converter (NTSC, PAL, 480I, 576I, 525I, 625I, 1035I, 1080I), 2-3 pull down Converter (NTSC, 480I, 525I, 1035I, 1080I (60Hz)), 2-2 pull down Converter (PAL, 576I, 625I, NTSC, 480I, 525I), Digital Zoom Function (100-900% Selectable), Video Wall 4-25 multi screen, Self Diagnosis, Image Burn reduction tools (ABL LOCK1~3, INVERSE, WHITE, ORBITER (Auto1,2/Manual), SCREEN WIPER), Color Temperature select (high/mid/mid low/low, user has 4 memories), Key lock (Except power SW), Auto Picture, Input Skip, Color Detail Adjustment, Low Tone (3 mode), Auto ID, Programmable Timer, Gamma Correction (4 mode), Loop through interface, Plug and play (DDC1, DDC2b, PC3: DDC2b only)



Units are in mm
(inch)

The features and specifications may be subject to change without notice.

***1 HD/DVD/DTV input signals supported on this system**

480P (60 Hz)	480I (60 Hz)
525P (60 Hz)	525I (60 Hz)
576P (50 Hz)	576I (50 Hz)
625P (50 Hz)	625I (50 Hz)
720P (60 Hz)	1035I (60 Hz)
1080I (50 Hz)	1080I (60 Hz)

***2 The 5-BNC connectors are used as PC2 and COMPONENT2 input. Select one of them under "BNC INPUT".**

***3 Compatable with HDCP.**

Supported Signals

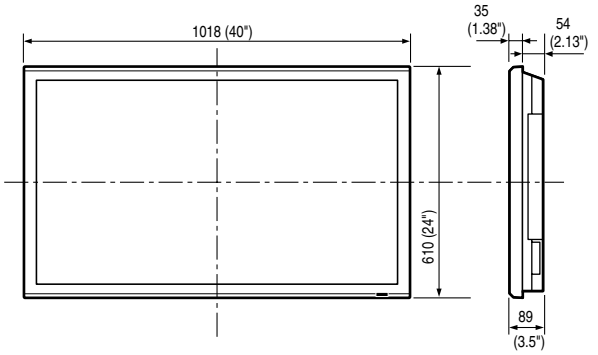
- 640 x 480P @ 59.94/60Hz
- 1280 x 720P @ 59.94/60Hz
- 1920 x 1080I @ 59.94/60Hz
- 720 x 480P @ 59.94/60Hz
- 1440 (720) x 480I @ 59.94/60Hz
- 1920 x 1080I @ 50Hz
- 720 x 576P @ 50Hz
- 1440 (720) x 576I @ 50Hz

Note: In some cases a signal on the plasma monitor may not be displayed properly. The problem may be an inconsistency with standards from the source equipment (DVD, Set-top box, etc...). If you do experience such a problem please contact your dealer and also the manufacturer of the source equipment.

Specifications

• PDP-42MVE1/LDFK and PDP-42MVE1/TXGB

Screen Size	36.3"(H) 20.4"(V) inches 921(H) 518(V) mm diagonal 42"
Aspect Ratio	16 : 9
Resolution	853(H) 480(V) pixels
Signals	
Synchronization Range	Horizontal : 15.5 to 110 kHz (automatic : step scan) Vertical : 50.0 to 120 Hz (automatic : step scan)
Input Signals	RGB, NTSC (3.58/4.43), PAL (B,G,M,N), PAL60, SECAM, HD*1 , DVD*1 , DTV*1
Input Terminals	(VIDEO1 and PC1 can also be used as OUTPUT terminals)
PC	
Visual 1 (Analog)	mini D-sub 15-pin 1
Visual 2 (Analog)	BNC (R, G, B, H/CS, V) 1*2
Visual 3 (Digital)	DVI-D 24-pin 1*3
Video	
Visual 1	BNC 1
Visual 2	RCA-pin 1
Visual 3	S-Video: DIN 4-pin 1
COMPONENT	
Visual 1	RCA-pin (Y, PB[CB], PR[CR]) 1*1
Visual 2	BNC (Y, PB[CB], PR[CR]) 1*1, *2
Audio	Stereo RCA 3 (Selectable)
RS-232C	D-sub 9-pinx 1
Sound output	8W+8W at 6 ohm
Power Supply	AC100-240V 50/60Hz
Current Rating	4.5A (maximum)
Power Consumption	270W (standby 0.9W)
Dimensions	40 (W) x 24 (H) x 3.5 (D) inches 1018 (W) x 610 (H) x 89 (D) mm
Weight	62.8 lbs / 28.5 kg (without stand)
Environmental Considerations	
Operating Temperature	0°C to 40°C / 32°F to 104°F
Other Features	Motion compensated 3D Scan Converter (NTSC, PAL, 480I, 576I, 525I, 625I, 1035I, 1080I), 2-3 pull down Converter (NTSC, 480I, 525I, 1035I, 1080I (60Hz)), 2-2 pull down Converter (PAL, 576I, 625I, NTSC, 480I, 525I), Digital Zoom Function (100-900% Selectable), Video Wall 4-25 multi screen, Self Diagnosis, Image Burn reduction tools (ABL LOCK1~3, INVERSE, WHITE, ORBITER (Auto1,2/Manual), SCREEN WIPER), Color Temperature select (high/mid/mid low/low, user has 4 memories), Key lock (Except power SW), Auto Picture, Input Skip, Color Detail Adjustment, Low Tone (3 mode), Auto ID, Programmable Timer, Gamma Correction (4 mode), Loop through interface, Plug and play (DDC1, DDC2b, PC3: DDC2b only)



Units are in mm
(inch)

The features and specifications may be subject to change without notice.

***1HD/DVD/DTV input signals supported on this system**

480P (60 Hz)	480I (60 Hz)
525P (60 Hz)	525I (60 Hz)
576P (50 Hz)	576I (50 Hz)
625P (50 Hz)	625I (50 Hz)
720P (60 Hz)	1035I (60 Hz)
1080I (50 Hz)	1080I (60 Hz)

***2The 5-BNC connectors are used as PC2 and COMPONENT2 input. Select one of them under "BNC INPUT".**

***3Compatable with HDCP.**

Supported Signals

- 640 x 480P @ 59.94/60Hz
- 1280 x 720P @ 59.94/60Hz
- 1920 x 1080I @ 59.94/60Hz
- 720 x 480P @ 59.94/60Hz
- 1440 (720) x 480I @ 59.94/60Hz
- 1920 x 1080I @ 50Hz
- 720 x 576P @ 50Hz
- 1440 (720) x 576I @ 50Hz

Note: In some cases a signal on the plasma monitor may not be displayed properly. The problem may be an inconsistency with standards from the source equipment (DVD, Set-top box, etc...). If you do experience such a problem please contact your dealer and also the manufacturer of the source equipment.

TABLE OF SIGNAL SUPPORTED

■ PDP-424MV/LUC

Supported resolution

- When the screen mode is NORMAL, each signal is converted to a 640 dots 480 lines signal. (Except for *2, *4)
- When the screen mode is FULL, each signal is converted to a 853 dots 480 lines signal. (Except for *3)

Computer input signals supported by this system

Model / Signal Type	Dots	lines	Vertical frequency (Hz)	Horizontal frequency (kHz)	Sync Polarity		Presence		Screen mode		RGB select*5	DVI	Memory
					Horizontal	Vertical	Horizontal	Vertical	NORMAL (4:3)	FULL (16:9)			
	640	400	70.1	31.5	NEG	NEG	YES	YES	YES*2*3	YES	– –	NO	4
IBM PC/AT compatible computers*8	640	480	59.9	31.5	NEG	NEG	YES	YES	YES*3	YES	STILL	YES	5
			72.8	37.9	NEG	NEG	YES	YES	YES*3	YES	– –	YES	7
			75.0	37.5	NEG	NEG	YES	YES	YES*3	YES	STILL	YES	8
			85.0	43.3	NEG	NEG	YES	YES	YES*3	YES	– –	YES	9
			100.4	51.1	NEG	NEG	YES	YES	YES*3	YES	– –	YES	41
			120.4	61.3	NEG	NEG	YES	YES	YES*3	YES	– –	YES	42
	848	480	60.0	31.0	POS	POS	YES	YES	– –	YES*3	WIDE2	YES	19
	852	480*1	60.0	31.7	NEG	NEG	YES	YES	– –	YES*3	WIDE1	YES	17
	800	600	56.3	35.2	POS	POS	YES	YES	YES	YES	STILL	YES	11
			60.3	37.9	POS	POS	YES	YES	YES	YES	STILL	YES	12
			72.2	48.1	POS	POS	YES	YES	YES	YES	– –	YES	13
			75.0	46.9	POS	POS	YES	YES	YES	YES	– –	YES	14
			85.1	53.7	POS	POS	YES	YES	YES	YES	– –	YES	15
			99.8	63.0	POS	POS	YES	YES	YES	YES	– –	YES	43
			120.0	75.7	POS	POS	YES	YES	YES	YES	– –	YES	44
	1024	768	60.0	48.4	NEG	NEG	YES	YES	YES	YES	STILL	YES	24
			70.1	56.5	NEG	NEG	YES	YES	YES	YES	– –	YES	25
			75.0	60.0	POS	POS	YES	YES	YES	YES	STILL	YES	26
			85.0	68.7	POS	POS	YES	YES	YES	YES	– –	YES	27
			100.6	80.5	NEG	NEG	YES	YES	YES	YES	– –	YES	45
	1152	864	75.0	67.5	POS	POS	YES	YES	YES	YES	STILL	YES	51
	1280	768	56.2	45.1	POS	POS	YES	YES	– –	YES	WIDE1	NO	52
			59.8	48.0	POS	NEG	YES	YES	– –	YES	WIDE3	YES	80
	1280	768*9	69.8	56.0	NEG	POS	YES	YES	– –	YES	WIDE1	YES	66
	1280	800*9	60.0	49.7	NEG	NEG	YES	YES	– –	YES	WIDE1	YES	21
	1280	854*9	60.0	53.1	NEG	NEG	YES	YES	– –	YES	WIDE2	YES	37
	1360	765	60.0	47.7	POS	POS	YES	YES	– –	YES	WIDE1	NO	22
	1360	768	60.0	47.7	POS	POS	YES	YES	– –	YES	WIDE1	YES	22
	1376	768	59.9	48.3	NEG	POS	YES	YES	– –	YES	WIDE2	YES	53
	1280	1024	60.0	64.0	POS	POS	YES	YES	YES*4	YES	STILL	YES	29
			75.0	80.0	POS	POS	YES	YES	YES*4	YES	– –	YES	30
			85.0	91.1	POS	POS	YES	YES	YES*4	YES	– –	YES	40
			100.1	108.5	POS	POS	YES	YES	YES*4	YES	– –	NO	47
	1680	1050*9	60.0	65.3	NEG	NEG	YES	YES	– –	YES	WIDE4	YES	38
	1600	1200	60.0	75.0	POS	POS	YES	YES	YES	YES	– –	YES	54
			65.0	81.3	POS	POS	YES	YES	YES	YES	– –	NO	55
			70.0	87.5	POS	POS	YES	YES	YES	YES	– –	NO	56
			75.0	93.8	POS	POS	YES	YES	YES	YES	– –	NO	57
			85.0	106.3	POS	POS	YES	YES	YES	YES	– –	NO	58
	1920	1200*9	60.0	74.6	NEG	NEG	YES	YES	– –	YES	WIDE2	– –	81
	1920	1200RB*9	60.0	74.0	NEG	NEG	YES	YES	– –	YES	WIDE3	YES	88
Apple Macintosh*6, *8	640	480	66.7	35.0	Sync on G	Sync on G	– –	– –	YES*3	YES	– –	NO	6
	832	624	74.6	49.7	Sync on G	Sync on G	– –	– –	YES	YES	– –	NO	16
	1024	768	74.9	60.2	Sync on G	Sync on G	– –	– –	YES	YES	WIDE1	NO	28
	1152	870	75.1	68.7	Sync on G	Sync on G	– –	– –	YES	YES	WIDE1	NO	39
	1440	900*9	60.0	56.0	NEG	NEG	YES	YES	– –	YES	– –	YES	89
Work Station (EWS4800)*8	1280	1024	60.0	64.6	NEG	NEG	YES	YES	YES*4	YES	– –	YES	29
			71.2	75.1	NEG	NEG	YES	YES	YES*4	YES	– –	YES	48
Work Station (HP)*8	1280	1024	72.0	78.1	– –	– –	– –	– –	YES*4	YES	– –	YES	59
Work Station (SUN)*8	1152	900	66.0	61.8	C Sync	C Sync	– –	– –	YES	YES	– –	YES	60
			76.0	71.7	C Sync	C Sync	– –	– –	YES	YES	– –	YES	61
	1280	1024	76.1	81.1	C Sync	C Sync	– –	– –	YES*4	YES	– –	YES	30
Work Station (SGI)	1024	768	60.0	49.7	– –	– –	– –	– –	YES	YES	– –	YES	62
	1280	1024	60.0	63.9	– –	– –	– –	– –	YES*4	YES	– –	YES	29
IDC-3000G													
PAL625P	768	576	50.0	31.4	NEG	NEG	YES	YES	YES*7	YES*7	– –	NO	31
NTSC525P	640	480	59.9	31.5	NEG	NEG	YES	YES	YES*7	YES*7	MOTION	NO	32

*1 Only when using a graphic accelerator board that is capable of displaying 852 480.
*2 Display only 400 lines with the screen center of the vertical orientation located at the center.
*3 The picture is displayed in the original resolution. The picture will be compressed for other signals.
*4 Aspect ratio is 5:4. This signal is converted to a 600 dots 480 lines signal.
*5 Normally the RGB select mode suite for the input signals is set automatically. If the picture is not displayed properly, set the RGB mode prepared for the input signals listed in the table above.
*6 To connect the monitor to Macintosh computer, use the monitor adapter (D-Sub 15-pin) to your computer's video port.
*7 Other screen modes (ZOOM and WIDE) are available as well.
*8 When viewing a moving picture at a vertical frequency greater than 65Hz, the picture may sometimes be unstable (jumpy). If this occurs, please set the refresh rate of the external equipment to 60Hz.
To view 480I@60Hz (480 interlaced lines, 60Hz refresh rate) or 576I@50Hz (576 interlaced lines, 50Hz refresh rate) when sync polarity is “Sync on Green”, set “RGB SELECT” to “MOTION”.
*9 CVT standard compliant.

NOTE:

- *While the input signals comply with the resolution listed in the table above, you may have to adjust the position and size of the picture or the fine picture because of errors in synchronization of your computer.*
- *This monitor has a resolution of 853 dots 480 lines. It is recommended that the input signal should be VGA, wide VGA, or equivalent.*
- *With digital input some signals are not accepted.*
- *The sync may be disturbed when a nonstandard signal other than the aforementioned is input.*
- *If you are connecting a composite sync signal, use the HD terminal.*

What is HDCP/HDCP technology?
HDCP is an acronym for High-bandwidth Digital Content Protection. High bandwidth Digital Content Protection (HDCP) is a system for preventing illegal copying of video data sent over a Digital Visual Interface (DVI).
If you are unable to view material via the DVI input, this does not necessarily mean the PDP is not functioning properly. With the implementation of HDCP, there may be cases in which certain content is protected with HDCP and might not be displayed due to the decision/intention of the HDCP community (Digital Content Protection, LLC).

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■ PDP-42MVE1/LDFK & /TXGB

Supported resolution

- When the screen mode is NORMAL, each signal is converted to a 640 dots 480 lines signal. (Except for *2, *4)
- When the screen mode is FULL, each signal is converted to a 853 dots 480 lines signal. (Except for *3)

Computer input signals supported by this system

Model / Signal Type	Dots	lines	Vertical frequency (Hz)	Horizontal frequency (kHz)	Sync Polarity		Presence		Screen mode		RGB select*5	DVI	Memory
					Horizontal	Vertical	Horizontal	Vertical	NORMAL (4:3)	FULL (16:9)			
	640	400	70.1	31.5	NEG	NEG	YES	YES	YES*2*3	YES	– –	NO	4
IBM PC/AT compatible computers*8	640	480	59.9	31.5	NEG	NEG	YES	YES	YES*3	YES	STILL	YES	5
			72.8	37.9	NEG	NEG	YES	YES	YES*3	YES	– –	YES	7
			75.0	37.5	NEG	NEG	YES	YES	YES*3	YES	STILL	YES	8
			85.0	43.3	NEG	NEG	YES	YES	YES*3	YES	– –	YES	9
			100.4	51.1	NEG	NEG	YES	YES	YES*3	YES	– –	YES	41
			120.4	61.3	NEG	NEG	YES	YES	YES*3	YES	– –	YES	42
	848	480	60.0	31.0	POS	POS	YES	YES	– –	YES*3	WIDE2	YES	19
	852	480*1	60.0	31.7	NEG	NEG	YES	YES	– –	YES*3	WIDE1	YES	17
	800	600	56.3	35.2	POS	POS	YES	YES	YES	YES	STILL	YES	11
			60.3	37.9	POS	POS	YES	YES	YES	YES	STILL	YES	12
			72.2	48.1	POS	POS	YES	YES	YES	YES	– –	YES	13
			75.0	46.9	POS	POS	YES	YES	YES	YES	– –	YES	14
			85.1	53.7	POS	POS	YES	YES	YES	YES	– –	YES	15
			99.8	63.0	POS	POS	YES	YES	YES	YES	– –	YES	43
			120.0	75.7	POS	POS	YES	YES	YES	YES	– –	YES	44
	1024	768	60.0	48.4	NEG	NEG	YES	YES	YES	YES	STILL	YES	24
			70.1	56.5	NEG	NEG	YES	YES	YES	YES	– –	YES	25
			75.0	60.0	POS	POS	YES	YES	YES	YES	STILL	YES	26
			85.0	68.7	POS	POS	YES	YES	YES	YES	– –	YES	27
			100.6	80.5	NEG	NEG	YES	YES	YES	YES	– –	YES	45
	1152	864	75.0	67.5	POS	POS	YES	YES	YES	YES	STILL	YES	51
	1280	768	56.2	45.1	POS	POS	YES	YES	– –	YES	WIDE1	NO	52
			59.8	48.0	POS	NEG	YES	YES	– –	YES	WIDE3	YES	80
	1280	768*9	69.8	56.0	NEG	POS	YES	YES	– –	YES	WIDE1	YES	66
	1280	800*9	60.0	49.7	NEG	NEG	YES	YES	– –	YES	WIDE1	YES	21
	1280	854*9	60.0	53.1	NEG	NEG	YES	YES	– –	YES	WIDE2	YES	37
	1360	765	60.0	47.7	POS	POS	YES	YES	– –	YES	WIDE1	NO	22
	1360	768	60.0	47.7	POS	POS	YES	YES	– –	YES	WIDE1	YES	22
	1376	768	59.9	48.3	NEG	POS	YES	YES	– –	YES	WIDE2	YES	53
	1280	1024	60.0	64.0	POS	POS	YES	YES	YES*4	YES	STILL	YES	29
			75.0	80.0	POS	POS	YES	YES	YES*4	YES	– –	YES	30
			85.0	91.1	POS	POS	YES	YES	YES*4	YES	– –	YES	40
			100.1	108.5	POS	POS	YES	YES	YES*4	YES	– –	NO	47
	1680	1050*9	60.0	65.3	NEG	NEG	YES	YES	– –	YES	WIDE4	YES	38
	1600	1200	60.0	75.0	POS	POS	YES	YES	YES	YES	– –	YES	54
			65.0	81.3	POS	POS	YES	YES	YES	YES	– –	NO	55
			70.0	87.5	POS	POS	YES	YES	YES	YES	– –	NO	56
			75.0	93.8	POS	POS	YES	YES	YES	YES	– –	NO	57
			85.0	106.3	POS	POS	YES	YES	YES	YES	– –	NO	58
	1920	1200*9	60.0	74.6	NEG	NEG	YES	YES	– –	YES	WIDE2	– –	81
	1920	1200RB*9	60.0	74.0	NEG	NEG	YES	YES	– –	YES	WIDE3	YES	88
Apple Macintosh*6, *8	640	480	66.7	35.0	Sync on G	Sync on G	– –	– –	YES*3	YES	– –	NO	6
	832	624	74.6	49.7	Sync on G	Sync on G	– –	– –	YES	YES	– –	NO	16
	1024	768	74.9	60.2	Sync on G	Sync on G	– –	– –	YES	YES	WIDE1	NO	28
	1152	870	75.1	68.7	Sync on G	Sync on G	– –	– –	YES	YES	WIDE1	NO	39
	1440	900*9	60.0	56.0	NEG	NEG	YES	YES	– –	YES	– –	YES	89
Work Station (EWS4800)*8	1280	1024	60.0	64.6	NEG	NEG	YES	YES	YES*4	YES	– –	YES	29
			71.2	75.1	NEG	NEG	YES	YES	YES*4	YES	– –	YES	48
Work Station (HP)*8	1280	1024	72.0	78.1	– –	– –	– –	– –	YES*4	YES	– –	YES	59
Work Station (SUN)*8	1152	900	66.0	61.8	C Sync	C Sync	– –	– –	YES	YES	– –	YES	60
			76.0	71.7	C Sync	C Sync	– –	– –	YES	YES	– –	YES	61
	1280	1024	76.1	81.1	C Sync	C Sync	– –	– –	YES*4	YES	– –	YES	30
Work Station (SGI)	1024	768	60.0	49.7	– –	– –	– –	– –	YES	YES	– –	YES	62
	1280	1024	60.0	63.9	– –	– –	– –	– –	YES*4	YES	– –	YES	29
IDC-3000G													
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NTSC525P	640	480	59.9	31.5	NEG	NEG	YES	YES	YES*7	YES*7	MOTION	NO	32

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To view 480I@60Hz (480 interlaced lines, 60Hz refresh rate) or 576I@50Hz (576 interlaced lines, 50Hz refresh rate) when sync polarity is “Sync on Green”, set “RGB SELECT” to “MOTION”.
*9 CVT standard compliant.

NOTE:

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- *This monitor has a resolution of 853 dots 480 lines. It is recommended that the input signal be VGA, wide VGA or equivalent.*
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- *If you are connecting a composite sync signal, use the HD terminal.*

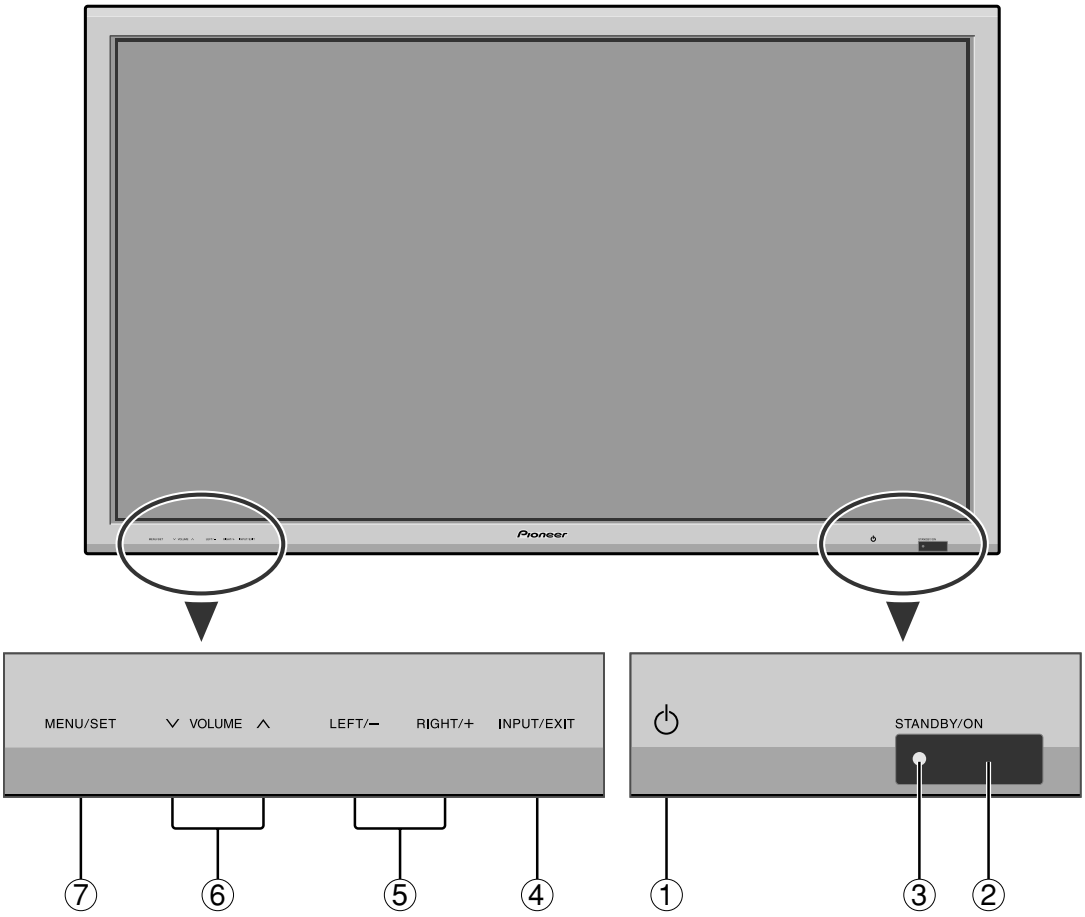
What is HDCP/HDCP technology?
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If you are unable to view material via the DVI input, this does not necessarily mean the PDP is not functioning properly. With the implementation of HDCP, there may be cases in which certain content is protected with HDCP and might not be displayed due to the decision/intention of the HDCP community (Digital Content Protection, LLC).

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PANEL FACILITIES

■ PDP-424MV

Front View



① **Power (⏻)**
Turns the monitor's power on and off.

② **Remote sensor window**
Receives the signals from the remote control.

③ **STANDBY/ON indicator**
When the power is on Lights green.
When the power is in the standby mode ... Lights red.

④ **INPUT/EXIT**
Switches the input.
The available inputs depend on the setting of "BNC INPUT", "RGB SELECT" and "DVI SET-UP".
Functions as the EXIT buttons in the On-Screen Display (OSD) mode.

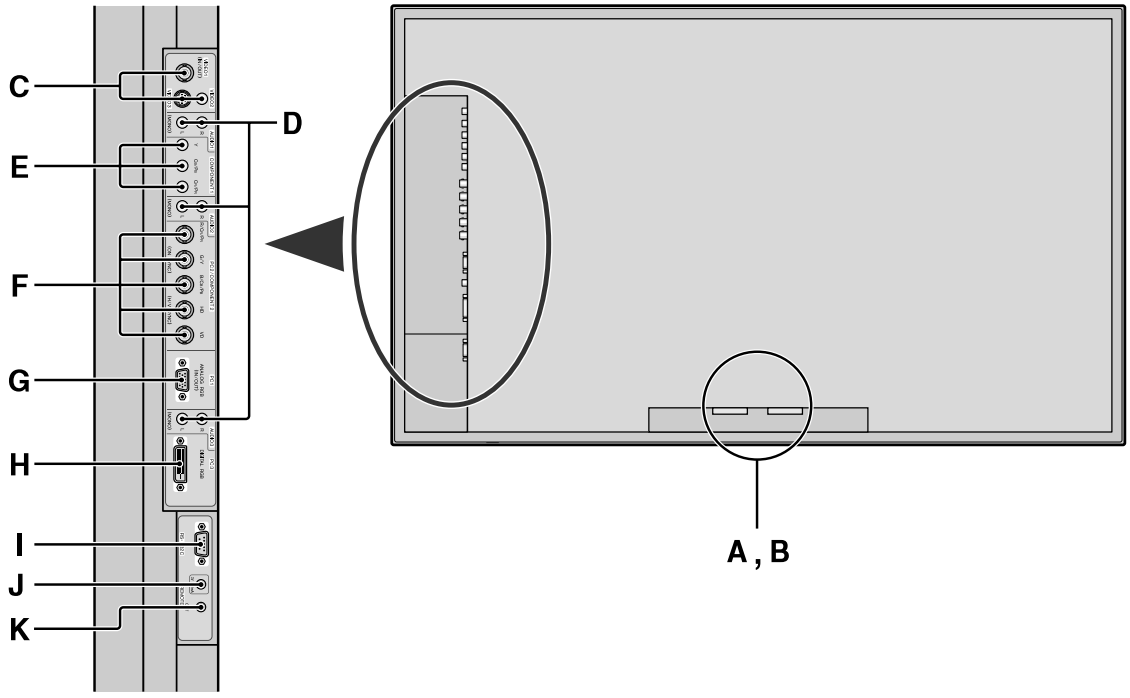
⑤ **LEFT/– and RIGHT/+**
Functions as the CURSOR (◄ / ►) buttons in the On-Screen Display (OSD) mode.

⑥ **VOLUME ∨ and ∧**
Adjusts the volume. Functions as the CURSOR (▲/▼) buttons in the On-Screen Display (OSD) mode.

⑦ **MENU/SET**
Sets the On-Screen Display (OSD) mode and displays the main menu.

WARNING
The Power on/off switch does not disconnect the plasma display completely from the supply mains.

Rear View/Terminal Board



A AC IN
Connect the included power cord here.

B EXT SPEAKER L and R
Connect speakers (optional) here. Maintain the correct polarity. Connect the ⊕ (positive) speaker wire to the ⊕ EXT SPEAKER terminal and the ⊖ (negative) speaker wire to the ⊖ EXT SPEAKER terminal on both LEFT and RIGHT channels.
Please refer to your speaker's owner's manual.

C VIDEO1, 2, 3 (BNC, RCA, S-Video)
Connect VCR's, DVD's or Video Cameras, etc. here.
VIDEO1 can be used for Input or Output

D AUDIO1, AUDIO2, AUDIO3
These are audio input terminals.
The input is selectable. Set which video image to allot them from the SOUND menu screen.

E COMPONENT1
Connect DVD's, High Definition or Laser Discs, etc. here.

F PC2/COMPONENT2
PC2: You can connect an analog RGB signal and the syncronization signal.
COMPONENT2: You can connect DVDs, High Definition sources, Laser Discs, etc. here.
This input can be set for use with an RGB or component source

G PC1 (mini D-Sub 15pin)
Connect an analog RGB signal from a computer, etc. here. This input can be used for Input or Output

H PC3 (DVI 24pin)
Connect a digital signal (TMDS) from a source with a DVI output.

I RS-232C
Never connect any component to this connector without first consulting your Pioneer installation technician.
This connector is used for plasma display setup adjustments.

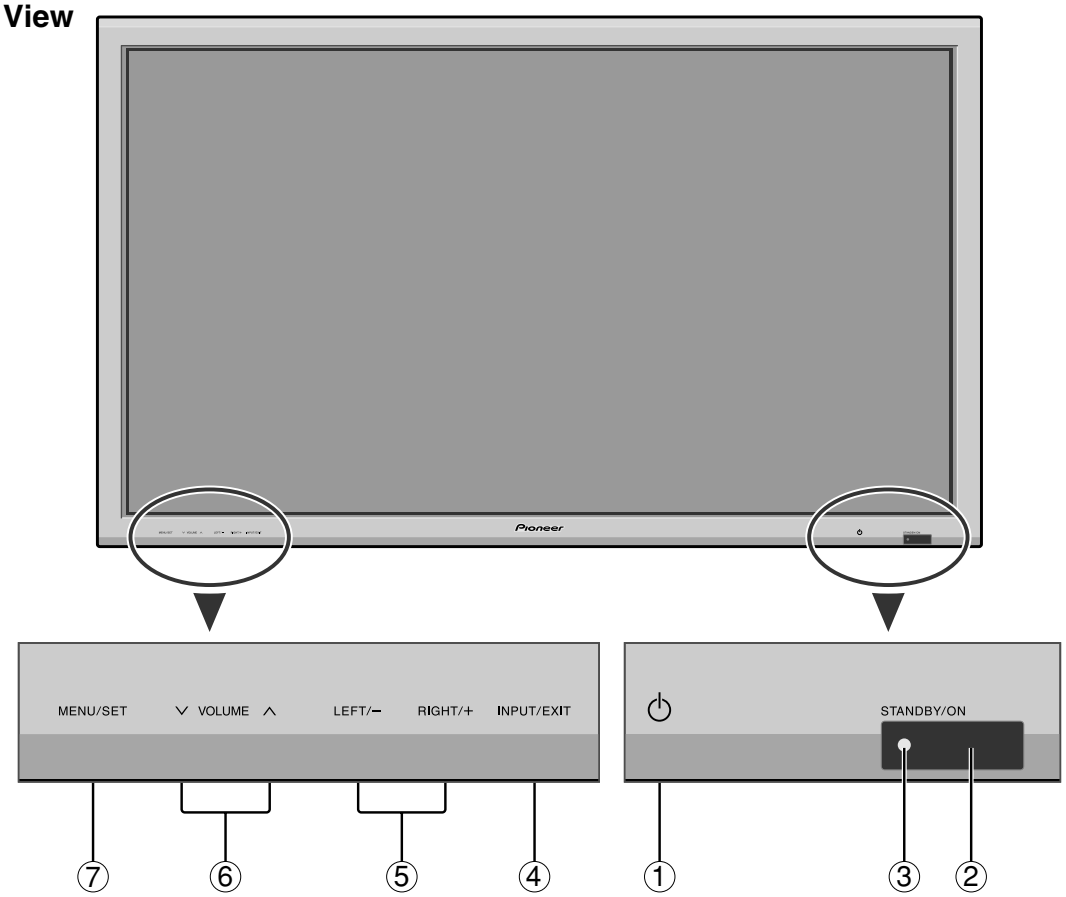
J REMOTE IN
Connect the remote cable* to the remote control's remote jack to obtain wired remote control.

K REMOTE OUT
Connect the remote cable* to the REMOTE IN jack of the other display monitor to obtain wired remote control.

* The 1/8 Stereo Mini cable must be purchased separately.

■ PDP-42MVE1/LDFK & /TXGB

Front View



① **Power (⏻)**
Turns the monitor's power on and off.

② **Remote sensor window**
Receives the signals from the remote control.

③ **STANDBY/ON indicator**
When the power is on Lights green.
When the power is in the standby mode ... Lights red.

④ **INPUT/EXIT**
Switches the input.
The available inputs depend on the setting of "BNC INPUT", "RGB SELECT", "D-SUB SELECT" and "DVI SET-UP".
Functions as the EXIT buttons in the On-Screen Display (OSD) mode.

⑤ **LEFT/– and RIGHT/+**
Functions as the CURSOR (◄ / ►) buttons in the On-Screen Display (OSD) mode.

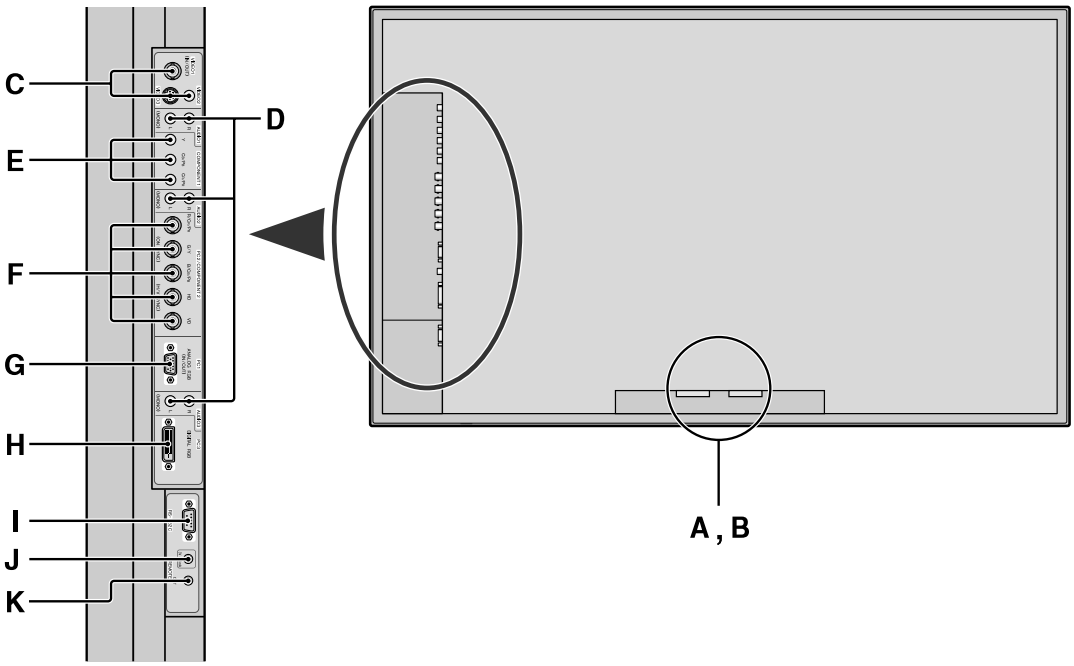
⑥ **VOLUME ∨ and ∧**
Adjusts the volume. Functions as the CURSOR (▲/▼) buttons in the On-Screen Display (OSD) mode.

⑦ **MENU/SET**
Sets the On-Screen Display (OSD) mode and displays the main menu.

WARNING
The Power on/off switch does not disconnect the plasma display completely from the supply mains.

Note: *This plasma monitor has the capasity to display images when connected to European DVD players with a SCART output signal, which is RGB with composite sync.*
Your dealer can supply a special SCART cable, which will enable you to use the RGB with composite sync signal.
To obtain the special cable as well as for further information, please contact your dealer.
Please refer to page 19 for selection of the correct mode in the on-screen display.

Rear View/Terminal Board



A AC IN
Connect the included power cord here.

B EXT SPEAKER L and R
Connect speakers (optional) here. Maintain the correct polarity. Connect the ⊕ (positive) speaker wire to the ⊕ EXT SPEAKER terminal and the ⊖ (negative) speaker wire to the ⊖ EXT SPEAKER terminal on both LEFT and RIGHT channels.
Please refer to your speaker's owner's manual.

C VIDEO1, 2, 3 (BNC, RCA, S-Video)
Connect VCR's, DVD's or Video Cameras, etc. here. VIDEO1 can be used for Input or Output (see page 24).

D AUDIO1, AUDIO2, AUDIO3
These are audio input terminals.
The input is selectable. Set which video image to allot them from the SOUND menu screen.

E COMPONENT1
Connect DVD's, High Definition or Laser Discs, etc. here.

F PC2/COMPONENT2
PC2: You can connect an analog RGB signal and the syncronization signal.
COMPONENT2: You can connect DVDs, High Definition sources, Laser Discs, etc. here.
This input can be set for use with an RGB or component source (see page 17).

G PC1 (mini D-Sub 15pin)
Connect an analog RGB signal from a computer, etc. here. This input can be used for Input or Output (see page 24).

H PC3 (DVI 24pin)
Connect a digital signal (TMDS) from a source with a DVI output.

I RS-232C
Never connect any component to this connector without first consulting your Pioneer installation technician.
This connector is used for plasma display setup adjustments.

J REMOTE IN
Connect the remote cable* to the remote control's remote jack to obtain wired remote control.

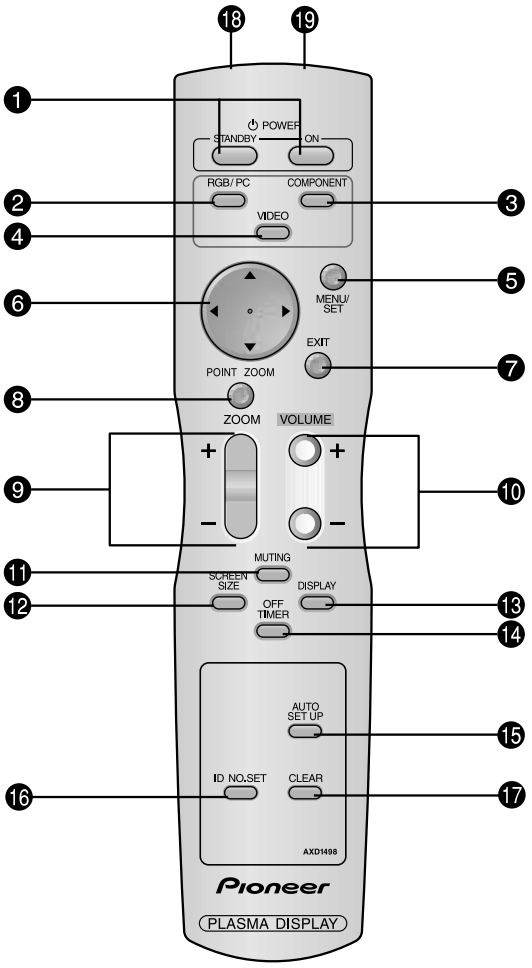
K REMOTE OUT
Connect the remote cable* to the REMOTE IN jack of the other display monitor to obtain wired remote control.

Information

- For Y/CB/Cr, connect to the COMPONENT1 or PC2/COMPONENT2 terminals.
- For SCART, this unit provides three ways to connect:
 · SCART1: Connect R/G/B and composite sync. to the PC2/COMPONENT2 terminals. (R, G, B and HD connector)
 · SCART2: Connect R/G/B to the COMPONENT2 terminals and composite sync. to the VIDEO1 terminal.
 · SCART3: Connect R/G/B and composite sync. to the PC1 terminal.

* The 1/8 Stereo Mini cable must be purchased separately.

Remote Control



① **POWER ON/STANDBY**
Switches the power on/standby.
(This does not operate when STANDBY/ON indicator of the main unit is off.)

② **RGB/PC**
Press this button to select RGB/PC as the source. RGB/PC can also be selected using the INPUT/EXIT button on the monitor.

③ **COMPONENT**
Press this button to select COMPONENT as the source. COMPONENT can also be selected using the INPUT/EXIT button on the monitor.

④ **VIDEO**
Press this button to select VIDEO as the source.

→ VIDEO1 → VIDEO2 → VIDEO3

VIDEO can also be selected using the INPUT/EXIT button on the monitor.

⑤ **MENU/SET**
Press this button to access the OSD controls.
Press this button during the display of the main menu to go to the sub menu.

⑥ **CURSOR (▲ / ▼ / ◄ / ►)**
Use these buttons to select items or settings and to adjust settings.

⑦ **EXIT**
Press this button to exit the OSD controls in the main menu. Press this button during the display of the sub menu to return to the previous menu.

⑧ **POINT ZOOM**
Press this button to display the pointer.

⑨ **ZOOM (+ /–)**
Enlarges or reduces the image.

⑩ **VOLUME (+/–)**
Adjusts the sound volume.

⑪ **MUTING**
Mutes the sound.

⑫ **SCREEN SIZE**
Automatically detects the signal and sets the aspect ratio. SCREEN SIZE button is not active for all signals.

⑬ **DISPLAY**
Displays the source settings on the screen.

⑭ **OFF TIMER**
Activates the off timer for the unit.

⑮ **AUTO SET UP**
Press this button to adjust PHASE, CLOCK, Position, and Contrast automatically, or to switch the screen size to ZOOM mode automatically with the superimposed caption displayed fully only when the picture contains dark areas above and below the picture.

⑯ **ID NO. SET**
Set the ID number in the remote control. The remote control can then be used only for a display with the same ID number. When several displays are used together they can be controlled individually.

⑰ **CLEAR**
Clears the number set by the ID NO. SET button.

⑱ **Remote control signal transmitter**
Transmits the remote control signals.

⑲ **Remote Jack**
Insert the plug of the remote cable (The 1/8 Stereo Mini cable) here when using the supplied remote control in the wired condition.

PARTS LIST

NOTES:
- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Screws adjacent to ▼ mark on product are used for disassembly.*
- *For the applying amount of lubricants or glue, follow the instructions in this manual. (In the case of no amount instructions, apply as you think it appropriate.)*
- *Reference Nos. indicate the pages and Nos. in the service manual for the base model.*

■ PDP-424MV and PDP-42MVE1/LDFK, /TXGB

PDP-424MV/LUC and PDP-42MVE1/LDFK, /TXGB are constructed the same except for the following:

Symbol	Mark	Symbol and Description	Part No.		Remarks
			PDP-424MV/LUC	PDP-42MVE1/LDFK /TXGB	
		PDP MODULE			
		P01 PDP-NP42B3MF01AB	9S900064	9S900064	
		1 PKG42B3G1	9S899523	9S899523	01D
		2 PKG42B3J4/42D2J4/35B2J4	9S899627	9S899627	01A
		3 PKG42B3J3	9S899282	9S899282	01A
		4 PKG42B3J1	9S899524	9S899524	02B
		5 PKG42B3J2	9S899525	9S899525	02B
		6 PKG42B3E1	9S899351	9S899351	01C
		PKG42B3E1	9S899528	9S899528	01D
		7 PKG42B3E2	9S899355	9S899355	01C
		PKG42B3E2	9S899531	9S899531	01D
		8 PKG42B3E3	9S899443	9S899443	
		9 PKG42B3C2	9S899847	9S899847	03J-06
		PWB ASSYS			
A01		MAIN1 PWB ASSY	937M2M02	937M3M02	
A02		232C PWB ASSY	937F0SA2	937F0SA2	
A03		CTL PWB ASSY	937F0SB2	937F0SB2	
A04		PWR PWB ASSY	937F0SC2	937F0SC2	
A05		LED PWB ASSY	937F0SD2	937F0SD2	
A06		SENB PWB ASSY	937F7SE2	937F0SE2	
A07		SENC PWB ASSY	937F7SF2	937F0SF2	
A08		SEND PWB ASSY	937F7SG2	937F0SG2	
A09		AUDIO PWB ASSY	937F7SH2	937F0SH2	
A11		POWER UNIT	3S110211	3S110211	
		MISCELLANEOUS ELECTRICAL PARTS			
CN-01		CONNECTOR 1P	7SW1W004	7SW1W004	
CN-02		CONNECTOR 2-WP(PI)	7SWXV006	7SWXV006	
FL31		CORE,FERRITE SFT-72SNB	6S170003	6S170003	
FL32		FERRITE CORE ZCAT2032-930	6S170005	6S170005	
FL33		FERRITE CORE ESD-R-19	6S170007	6S170007	
INLET		AC INLET 10DKDG3S(Y1)	6S760016	6S760016	
CN-AD		CABLE 31P L390	7S530036	7S530036	
CN-AU		CONNECTOR 7P(AU)	7SW7W003	7SW7W003	
CN-LD		CONNECTOR 5P(LD)	7SU512LD	7SU512LD	
CN-PA		CONNECTOR 6P(PA)	7SU621PA	7SU621PA	
CN-PD		CONNECTOR 10P(PD)	7SW0W007	7SW0W007	
CN-PH		CONNECTOR 4P(PH)	7SW4W010	7SW4W010	
CN-PM		CONNECTOR 7P(PM)	7SU710PM	7SU710PM	
CN-PN		CONNECTOR 12P(PN)	7SUB13PN	7SUB13PN	
CN-PV		CONNECTOR 8P(PV)	7SU813PV	7SU813PV	
CN-PW		CONNECTOR 8P(PW)	7SC807PW	7SC807PW	
CN-RS		CONNECTOR 12P(RS)	7SCB08RS	7SCB08RS	
CN-SW1		CONNECTOR 3P(SW)	7SB3W005	7SB3W005	
CN-SW2		CONNECTOR 3P(SW)	7SW3W004	7SW3W004	
CN-TM		CONNECTOR 4P(TM)	7SC428TM	7SC428TM	
CN-TR		CONNECTOR 4P(TR)	7SC418TR	7SC418TR	
CN-TS		CONNECTOR 4P(TS)	7SC410TS	7SC410TS	
FL01		FERRITE CORE ZCAT2032-930	6S170005	6S170005	
FL02		FERRITE CORE ZCAT2032-930	6S170005	6S170005	
FL03		FERRITE CORE ZCAT2032-930	6S170005	6S170005	
FL04		FERRITE CORE ZCAT2032-930	6S170005	6S170005	
FL05		CORE,FERRITE TFT-081813N	6S170004	6S170004	
FL06		FERRITE CORE ZCAT1518-0730	6S170006	6S170006	
FL07		FERRITE CORE ZCAT1518-0730	6S170006	6S170006	
FL08		FERRITE CORE ZCAT1518-0730	6S170006	6S170006	

Symbol	Mark	Symbol and Description	Part No.		Remarks
			PDP-424MV/LUC	PDP-42MVE1/LDFK , /TXGB	
		MECHANISM PARTS			
GKT01		GASKET(L20*10*T15)	29C01491	29C01491	
GKT02		GASKET(L70*10*T1)	29C00361	29C00361	
GKT03		GASKET(L20*5*T1)	29C00511	29C00511	
GKT04		GASKET(L20*5*T1)	29C00511	29C00511	
GKT05		GASKET(L300*5*T1)	29C01481	29C01481	
GKT06		GASKET(L100*10*T8)	29C01831	29C01831	
GKT07		GASKET(L100*10*T3)	29C01841	29C01841	
SRW01		SCREW(UNC4-40/4-40)	32990229	32990229	
SRW02		CBIPS*3*8*3KF	24N03691	24N03691	
SRW03		CBIPS*3*8*3KF	24N03691	24N03691	
SRW04		CBIPS*3*8*3KF	24N03691	24N03691	
SRW05		CBIPS*3*8*3KF	24N03691	24N03691	
SRW06		CBIPS*3*8*3KF	24N03691	24N03691	
SRW07		CBIPS*3*8*3KF	24N03691	24N03691	
SRW08		CBIPS*3*8*3KF	24N03691	24N03691	
SRW09		CBIPS*4*12*15KFE	29N01401	29N01401	
SRW10		CBIPS*4*12*15KFE	29N01401	29N01401	
SRW11		ET-CBIMS*4*8*3KF	24N04001	24N04001	
SRW12		TP-M3*6*3KF	24N04581	24N04581	
SRW13		TP-M3*6*3KF	24N04581	24N04581	
SRW14		TP-M3*6*3KF	24N04581	24N04581	
SRW15		TP-M3*6*3KF	24N04581	24N04581	
SRW16		TP-M3*6*3KF	24N04581	24N04581	
SRW17		TP-M3*6*3KF	24N04581	24N04581	
SRW18		TP-M3*6*3KF	24N04581	24N04581	
SRW19		TP-M3*6*3KF	24N04581	24N04581	
SRW21		TP-M3*6*3KF	24N04581	24N04581	
SRW23		PL-CPIMS*4*10*15BFE	29N01461	29N01461	
SRW24		PTN3*12*15KFE	29N01491	29N01491	
SRW25		PTN3*12*15KFE	29N01491	29N01491	
SRW26		TP-M3*4*3KF	29N01191	29N01191	
SRW27		P-CPIMS*3*6*3KF	29N01201	29N01201	
SRW28		P-CPIMS*3*6*3KF	29N01201	29N01201	
SRW29		P-CPIMS*3*6*3KF	29N01201	29N01201	
SRW30		SCREW PL-CPIMS*3*10*15KFE	29N01431	29N01431	
SRW31		SCREW PL-CPIMS*3*10*15KFE	29N01431	29N01431	
SRW32		SCREW PL-CPIMS*3*10*15KFE	29N01431	29N01431	
SRW33		CPIMS*NO.6-32UNC*8*3GF	29N01131	29N01131	
SRW34		CBIPS*4*12*15KFE	29N01401	29N01401	
M01			Not used	Not used	
M02		LEAD CLAMPER(D5.2)	24C00091	24C00091	
M03			Not used	Not used	
M04		EDGE SADDLE(TSB-1915)	24C05151	24C05151	
M05		BARRIER(INLET)	29J01321	29J01321	
M06	NSP	SERIAL LABEL	29L07101	29L07101	
M07		EDGING SADDLE(EDS-1208U)	29C00461	29C00461	
M08		CLAMP(MWC-2S)	29C01401	29C01401	
M09		CLAMP(WS-2W-V0)	29C01421	29C01421	
M10		EDGE SADDLE(TES-016NV)	29C01431	29C01431	
M11			Not used	Not used	
M12		BAND(L200)	29C01462	29C01462	
M13		LUG(L60)	29C01471	29C01471	
M14		LUG(L60)	29C01471	29C01471	
M15		EDGING(L56)T0.5	29C01541	29C01541	
M16		EDGING(L18)T0.5	29C01551	29C01551	
M17		SHIELDING SHEET(330*10)	29C01651	29C01651	
M18		COVER CONTROL(424MV)	29F01231	29F01231	
M19		CORNER PIECE BL	29F00531	29F00531	
M20		CORNER PIECE BR	29F00541	29F00541	

Symbol	Mark	Symbol and Description	Part No.		Remarks
			PDP-424MV/LUC	PDP-42MVE1/LDFK , /TXGB	
		MECHANISM PARTS			
M21		CORNER PIECE TL	29F00571	29F00571	
M22		CORNER PIECE TR	29F00581	29F00581	
M23		FRAME	29F00712	29F00712	
M24		BOTTON CONTROL(424MV)	29G00441	29G00441	
M25		CAP(POWER SW)	29G00261	29G00261	
M26		COVER(POWER SW)	29G00272	29G00272	
M27		BRACKET FILTER A	29H02121	29H02121	
M28		BRACKET FILTER B	29H02132	29H02132	
M29		BRACKET FILTER BTM	29H02142	29H02142	
M30	NSP	BRACKET FILTER TOP	29H02152	29H02152	
M31	NSP	BRACKET FILTER SIDE L	29H02161	29H02161	
M32	NSP	BRACKET POWER	29H02191	29H02191	
M33	NSP	BRACKET MAIN(42XM3)	29H03511	29H03511	
M34	NSP	BRACKET AUDIO(42XM3)	29H03521	29H03521	
M35	NSP	BRACKET 232C(42XM3)	29H03531	29H03531	
M36		BRACKET FILTER C	29H02311	29H02311	
M37	NSP	SHIELD COVER MAIN	29H03571	29H03571	
M38	NSP	SHIELD COVER L	29H03581	29H03581	
M39	NSP	SHIELD COVER R	29H03591	29H03591	
M40		BRACKET OPTION L	29H02353	29H02353	
M41		SHIELD PLATE MAIN(42XM3)	29H03541	29H03541	
M42	NSP	BRACKET FILTER SIDE R	29H02371	29H02371	
M43	NSP	BRACKET STAND ASSY	29H02612	29H02612	
M44			Not used	Not used	
M45		BRACKET OPTION R	29H02753	29H02753	
M46		GS COVER	29H02782	29H02782	
M47		PLATE 232C ASSY(424MV)	29H03831	29H03831	
M48		CUSHION(960*8*T5)	29J00902	29J00902	
M49		CUSHION(528*8*T5)	29J00912	29J00912	
M50		BARRIER(PS)	29J00992	29J00992	
M51		BARRIER(BACK-S)	29J01002	29J01002	
M52	NSP	CUSHION(420*20*T0.4)	29J01051	29J01051	
M53		BARRIER(LD)	29J01061	29J01061	
M54		BARRIER(PA)	29J01072	29J01072	
M55			Not used	Not used	
M56	NSP	CUSHION(720*8*T0.4)	29J01111	29J01111	
M57		SILICONE SHEET(AUDIO)T	29J01291	29J01291	
M58		CUSHION(40*20*T0.4)	29J01141	29J01141	
M59		CUSHION(20*10*T1)	29J01151	29J01151	
M60		FILTER	29KS0121	29KS0121	
M61	NSP	NAME PLATE(424MV)	29L07451	29L07461	
M62		EARTH LABEL(20x40)	29L0316	29L07441	
M63		GS COVER LABEL	29L03642	29L03642	
M64		TERMINAL PANEL B(424MV)	29P01611	29P01611	
M65		BACK COVER ASSY	956Y4651	956Y4651	
M66		TERMINAL PANEL S(424MV)	29P01601	29P01601	
M67		FRONT PANEL ASSY(424MV)	29DS0611	29DS0611	
M68			Not used	Not used	
M69			Not used	Not used	
M70			Not used	Not used	
M71			Not used	Not used	
M72		AUDIO HEAT SINK	29H03561	29H03561	
M73		INLET COLLAR	29F00481	29F00481	
M74		PIONEER LOGO BADGE	AAM1101	AAM1101	
M75	NSP	WARRANTY ENVELOPE(100*220)	78047921	29L07441	
M76	NSP	WARRANTY CARD MX JAPAN	7S810131	Not used	

Symbol	Mark	Symbol and Description	Part No.		Remarks
			PDP-424MV/LUC	PDP-42MVE1/LDFK , /TXGB	
		PRINTED & PACKING MATERIALS			
SHT001		INSTRUCTIONS PDP-424MV	7S802161	Not used	
SHT001		INSTRUCTIONS PDP-42MVE1	Not used	7S802171	
SHT002		CAUTION SHEET JAPAN	7S820291	Not used	
SHT002		CAUTION SHEET FOREIGN	Not used	7S820271	
SHT003		CAUTION SHEET FOREIGN	7S820271	Not used	
SHT003		WARRANTY CARD MVE EU	Not used	7S810241	
SHT004		BURNING CAUTION SHEET	7S820281	Not used	
SHT005		CAUTION SHEET	7S820301	Not used	
SHT006	NSP	WARRANTY CARD MX USA	7S810121	Not used	
PK01		POWER CORD U3 L3.0M L	7S552001	Not used	
PK02		REM-T HAND UNIT AXD1498	3S120242	Not used	
PK02		REM-T HAND UNIT AXD1498	Not used	3S120242	
PK03		STOPPER	24282431	24282431	
PK04	NSP	BAG,POLYETHYLENE(150*370)	24813191	24813191	
PK05		JOINT	24CS0551	24CS0551	
PK06	NSP	POLYETHYLENE BAG(70*100)	24M15221	24M15221	
PK07		BRACKET(SAFE)	24P01591	24P01591	
PK08		PROTECTION SHEET	29M00481	29M00481	
PK09		CUSHION(TL)	29MS2411	29MS2411	
PK10		CUSHION(TR)	29MS2421	29MS2421	
PK11		CUSHION(BL)	29MS2431	29MS2431	
PK12		CUSHION(BR)	29MS2441	29MS2441	
PK13		CUSHION(BC)	29MS2451	29MS2451	
PK14		CARTON BOX(B)	29MS2461	29MS2461	
PK15		ACCESSORY BOX(42VP4)	29MS2471	29MS2471	
PK16		CARTON BOX T(424MV)	29MS3281	Not used	
PK16		CARTON BOX T(424MVE1)	Not used	29MS3291	
PK17		FERRITE CORE ZCAT2032-930	6S170005	6S170005	
PK18	NSP	BATTERY,DRY CELL LR03-2SJ	4S490005	4S490005	
PK19		CORE,FERRITE SFT-72SNB	6S170003	6S170003	
PK20			Not used	Not used	
PK21			Not used	Not used	
PK22		PL-CPIMS*4*10*3KF	910E4026	910E4026	
PK23			Not used	Not used	
PK24			Not used	Not used	
PK25			Not used	Not used	
PK26			Not used	Not used	
PK27			Not used	Not used	
PK28			Not used	Not used	
PK29			Not used	Not used	
PK30			Not used	Not used	
PK31			Not used	Not used	
PK32			Not used	Not used	
PK33			Not used	Not used	
PK34		WIPING CLOTH	29J01491	29J01491	
PK35		POWER CORD CASE(42)	29MS3301	29MS3301	

HOW TO DIAGNOSE THE PDP MODULE

(PDP-NP42B3MF01AB)

1. List of tools required for repair

2. Points of failure diagnosis for a Board Assy (PKG)
 * Power source please do measurement of each ohmic value by status of OFF.

3. Replacement method of a Board Assy (PKG)
 and notes on replacement

4. Adjustments after replacement of parts in the module

5. Operation check

1. List of tools required for repair

a) Phillips screwdriver : For detaching/reattaching PKGs
b) Antistatic wrist strap :
 To be used when electronic components, such as PKGs, are to be handled
c) Signal generator (PC, etc.) : For voltage adjustment and display check
d) Powe : For voltage adjustment and display check
f) Tester : For cable check, voltage adjustment, etc.
g) Cushion : To be used when the PKGs are to be replaced

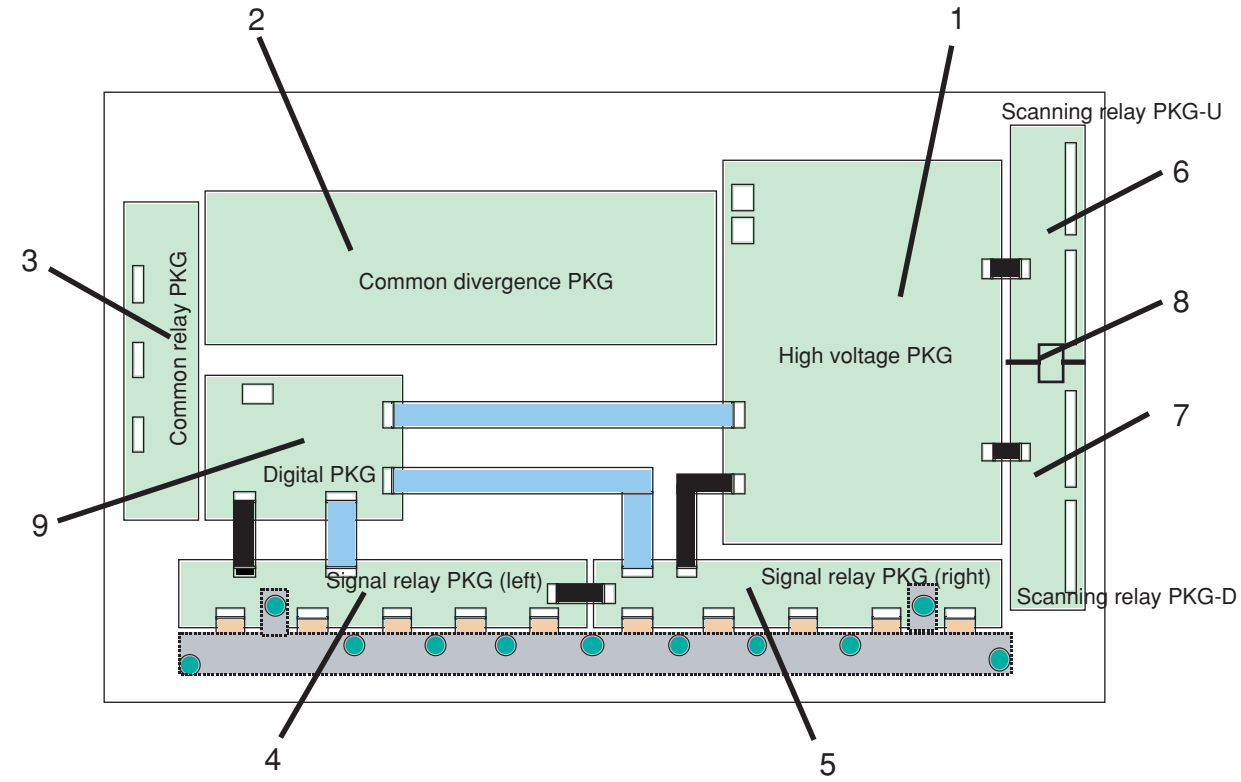
Note: Be sure to wear a wrist strap when you detach/reattach PKGs (Board Assy) to protect electronic components from being damaged by electrostatic charges.

PARTS LIST

PDP-NP42B3MF01AB

SYMBOL	PART NAME		PART NO	QTY	NOTE
	TYPE NAME	VERSION			
1	PKG42B3G1	01D	9S899523	1	High voltage PKG
2	PKG42B3J4	01A	9S899627	1	Common divergence PKG
3	PKG42B3J3	01A	9S899282	1	Common relay PKG
4	PKG42B3J1	02B	9S899524	1	Signal relay PKG (left)
5	PKG42B3J2	02B	9S899525	1	Signal relay PKG (right)
6	PKG42B3E1	01C	9S899351	1	Scanning relay PKG-U
	PKG42B3E1	01D	9S899528	1	
7	PKG42B3E2	01C	9S899355	1	Scanning relay PKG-D
	PKG42B3E2	01D	9S899531	1	
8	PKG42B3E3	Version nothing	9S899443	1	Scanning relay PKG-C
9	PKG42B3C2	03J-06	9S899847	1	Digital PKG

Notes:
- The version of a board assy (PKG) is indicated on the label on the board assy.
- When replacing the scanning relay board assys (PKG-C), make sure that the PKG-U (PKG42B3E1) and PKG-D (PKG42B3E2) of the same version are used, to ensure correct scanning timing.



Version label of the board assy (PKG)

• Part name • Serial number • HW version • SW version	• Part name • Serial number • Version number
Digital PKG	Other PKG

Compatible table of the board version

Part Name of PKG	Target Version	Compatible Version	Conditions	Remarks
High voltage PKG	0 1 A	0 1 D		
P K G 4 2 B 3 G 1	0 1 B			
	0 1 C			
Common divergence PKG	0 1 A	0 1 A		
P K G 4 2 B 3 J 4				
Common relay PKG	0 1 A	0 1 A		
P K G 4 2 B 3 J 3				
Signal relay PKG (left)	0 2 A	0 2 B		
P K G 4 2 B 3 J 1	0 2 B			
Signal relay PKG (right)	0 2 A	0 2 B		
P K G 4 2 B 3 J 2	0 2 B			
Scanning relay PKG-U P K G 4 2 B 3 E 1	0 1 C	0 1 C		
	0 1 D	0 1 D		
Scanning relay PKG-D P K G 4 2 B 3 E 2	0 1 C	0 1 C		
	0 1 D	0 1 D		
Digital PKG P K G 4 2 B 3 C 2	0 1 A — 0 6	0 3 J — 0 6		
	0 1 B — 0 6			
	0 1 D — 0 6			
	0 1 E — 0 6			
	0 1 F — 0 6			
	0 2 E — 0 6			
	0 2 F — 0 6			
	0 2 G — 0 6			
	0 2 J — 0 6			
	0 3 J — 0 6			

Note: By referring to the table on compatible versions of the board assys, make sure that board assys of compatible versions are used.

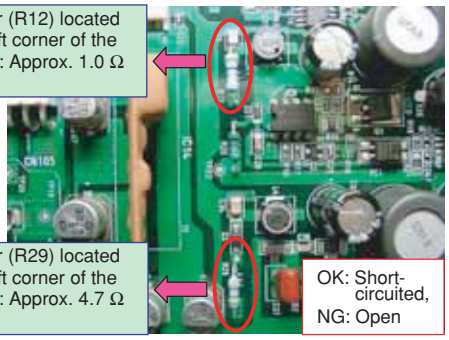
2. Points of failure diagnosis for a Board Assy (PKG)

The fuses and/or fusible resistors shown in the photos below may be blown by electric surges caused by a failure. In such a case, replace the corresponding PKG.

Failure diagnosis of the Scanning PKG

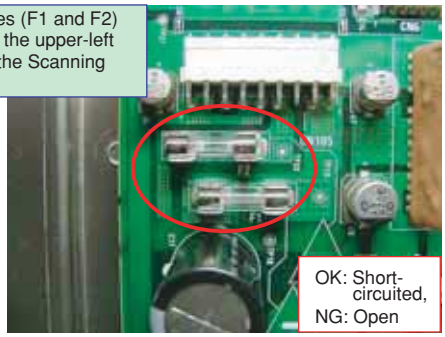
Fusible resistor (R12) located at the upper-left corner of the Scanning PKG: Approx. 1.0 Ω (1/2 W)

Fusible resistor (R29) located at the upper-left corner of the Scanning PKG: Approx. 4.7 Ω (1/4 W)



OK: Short-circuited,
NG: Open

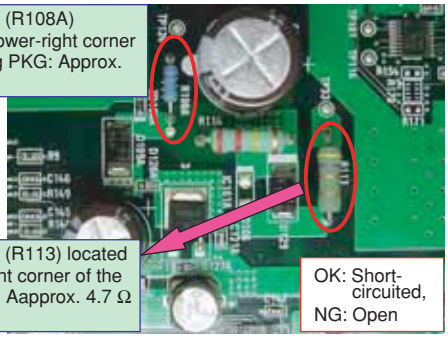
Glass fuses (F1 and F2) located at the upper-left corner of the Scanning PKG



OK: Short-circuited,
NG: Open

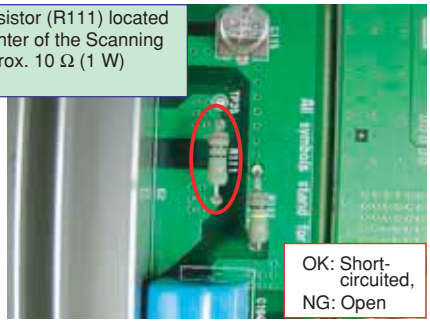
Fusible resistor (R108A) located at the lower-right corner of the Scanning PKG: Approx. 2.2 Ω (1 W)

Fusible resistor (R113) located at the lower-right corner of the Scanning PKG: Aapprox. 4.7 Ω (2 W)



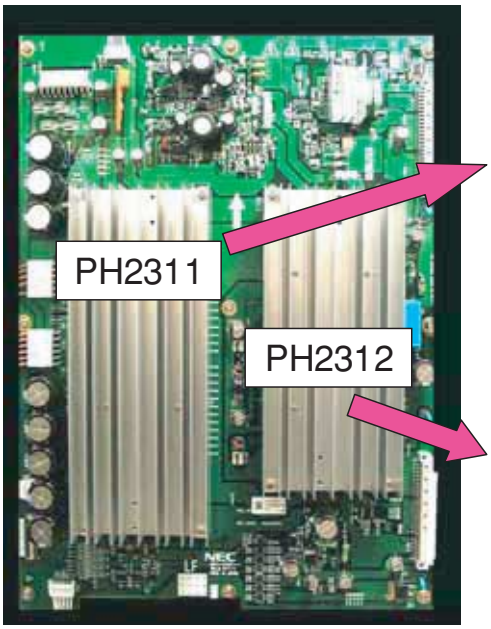
OK: Short-circuited,
NG: Open

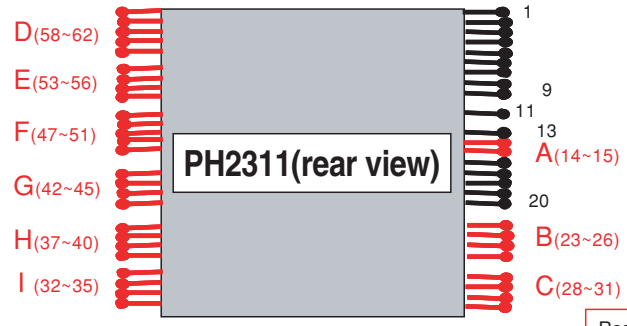
Fusible resistor (R111) located at right center of the Scanning PKG: Approx. 10 Ω (1 W)



OK: Short-circuited,
NG: Open

Failure diagnosis of the Power HIC on the Scanning PKG





Check points

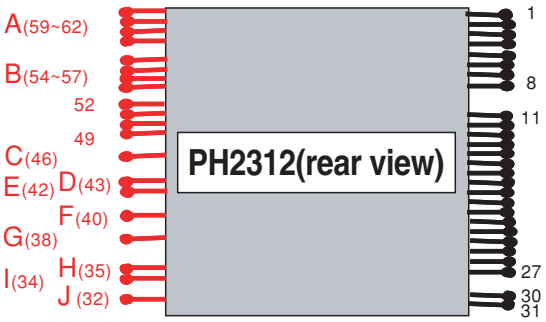
Between A and B
Between B and H

Between C and I

Between D and E
Between F and G

Result:
OK: k Ω or more,
NG: Short-circuited

Note: A, D, and E are ground.



Check points

Between A and B
Between C and D

Between E and F

Between G and H
Between I and J

Result:
OK: k Ω or more,
NG: Short-circuited

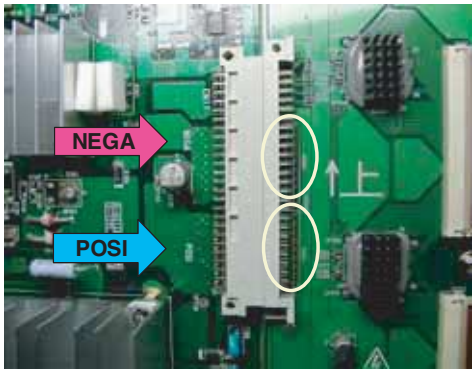
Note: C and G are ground.

Failure diagnosis of the Scanning IC

Check with a tester the resistance value between any pins indicated as NEGA and POSI of the connector in the photos below. If a positive and a negative pin of the connector on the Scanning Relay PKGs are short-circuited and remains short-circuited even after the connectors on the Scanning PKG and Scanning Relay PKG are disconnected, the Scanning IC on the Scanning Relay PKG is in failure.

Scanning PKG

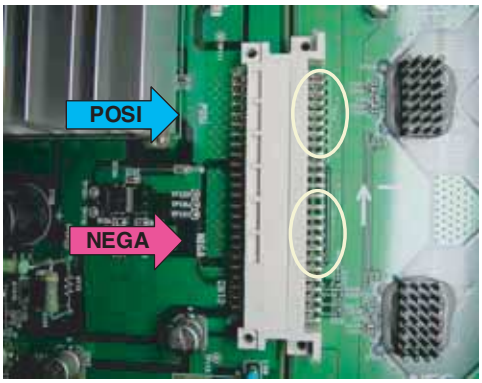
Scanning Relay PKG (upper connector)



Check points Between any pins of NEGA and POSI blocks

Scanning PKG

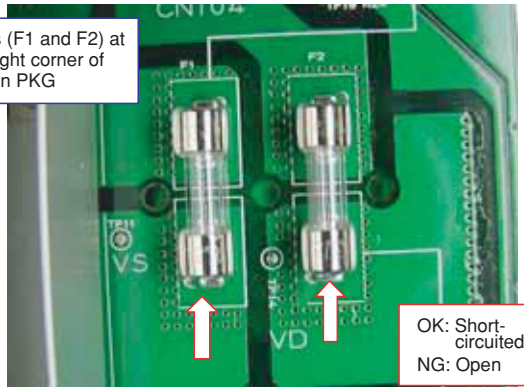
Scanning Relay PKG (lower connector)



OK: k Ω or more,
NG: Short-circuited

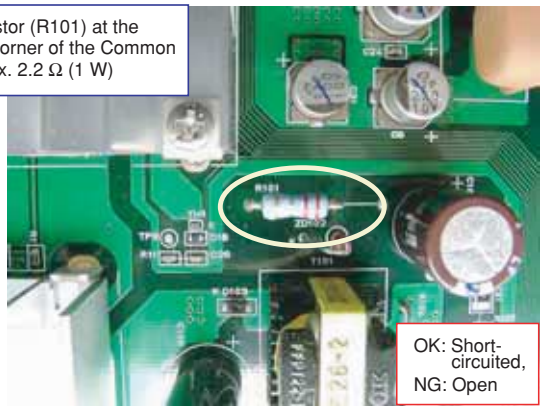
Failure diagnosis of the Common PKG

Glass fuses (F1 and F2) at the upper-right corner of the Common PKG



OK: Short-circuited,
NG: Open

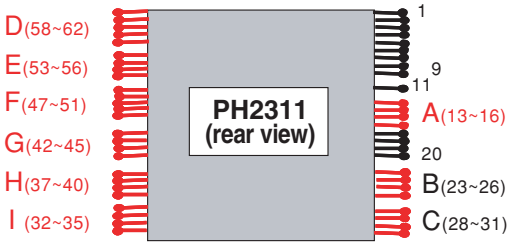
Fusible resistor (R101) at the lower-right corner of the Common PKG: Approx. 2.2 Ω (1 W)



OK: Short-circuited,
NG: Open

Failure diagnosis of the Power HIC on the Common PKG





Check points

Between A and B
Between B and H
Between C and I

Between D and E
Between F and G

Result:
OK: k Ω or more,
NG: Short-circuited

Note: A and D are ground.

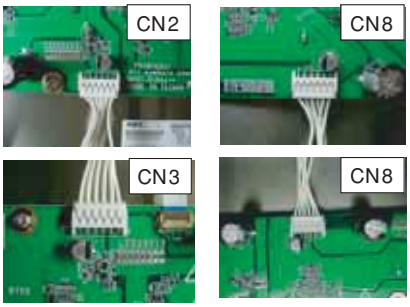
Failure diagnosis of the Data HIC

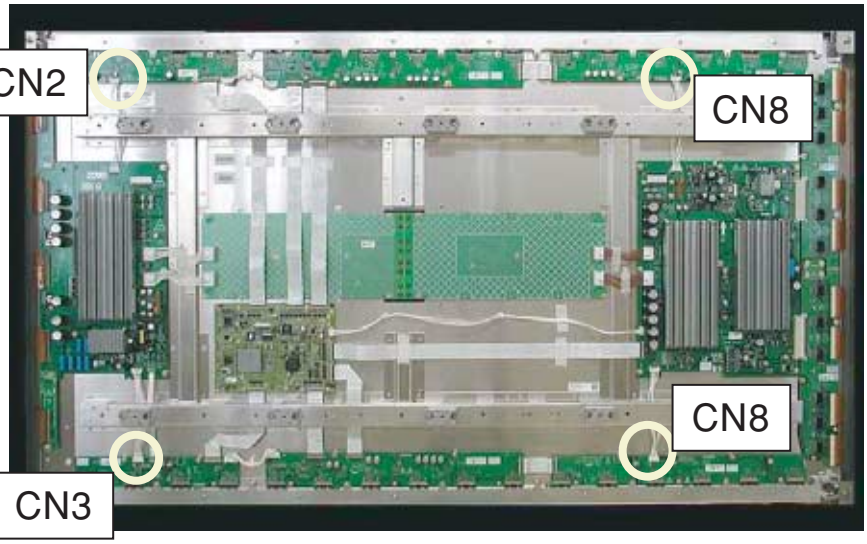
Failure symptom: The image in any block of the screen is not displayed.



Check with a tester between Pin 5 or 6 (Vd line of Data IC) and ground of each Signal Relay PKG.

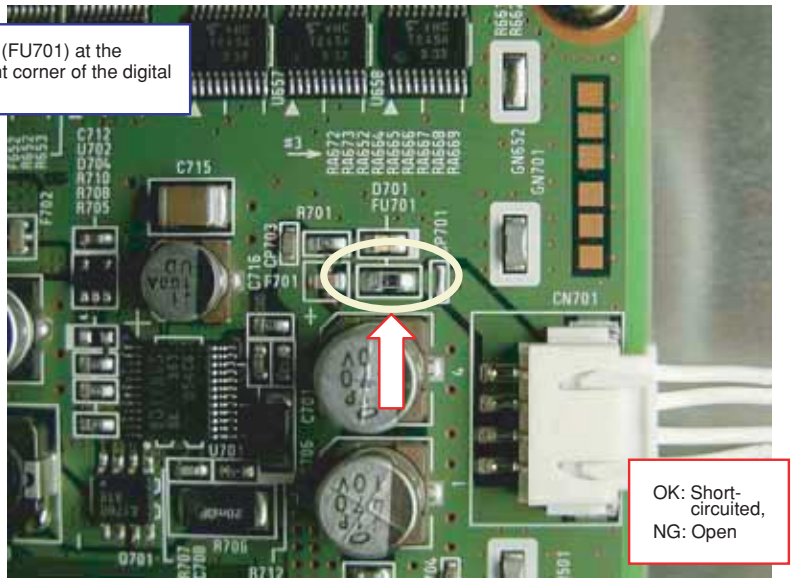
OK: Open
NG: Short-circuited,





Failure diagnosis of the Digital PKG

Chip fuse (FU701) at the upper-right corner of the digital PKG

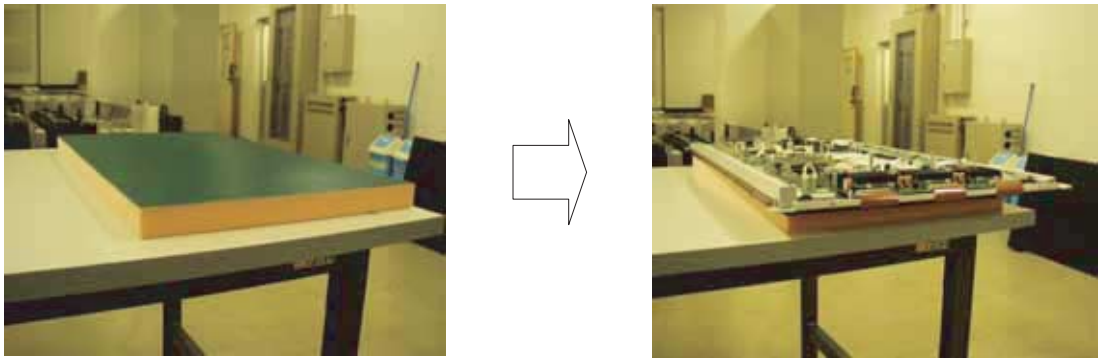


OK: Short-circuited,
NG: Open

3. Replacement method for a Board Assy (PKG) and notes on replacement

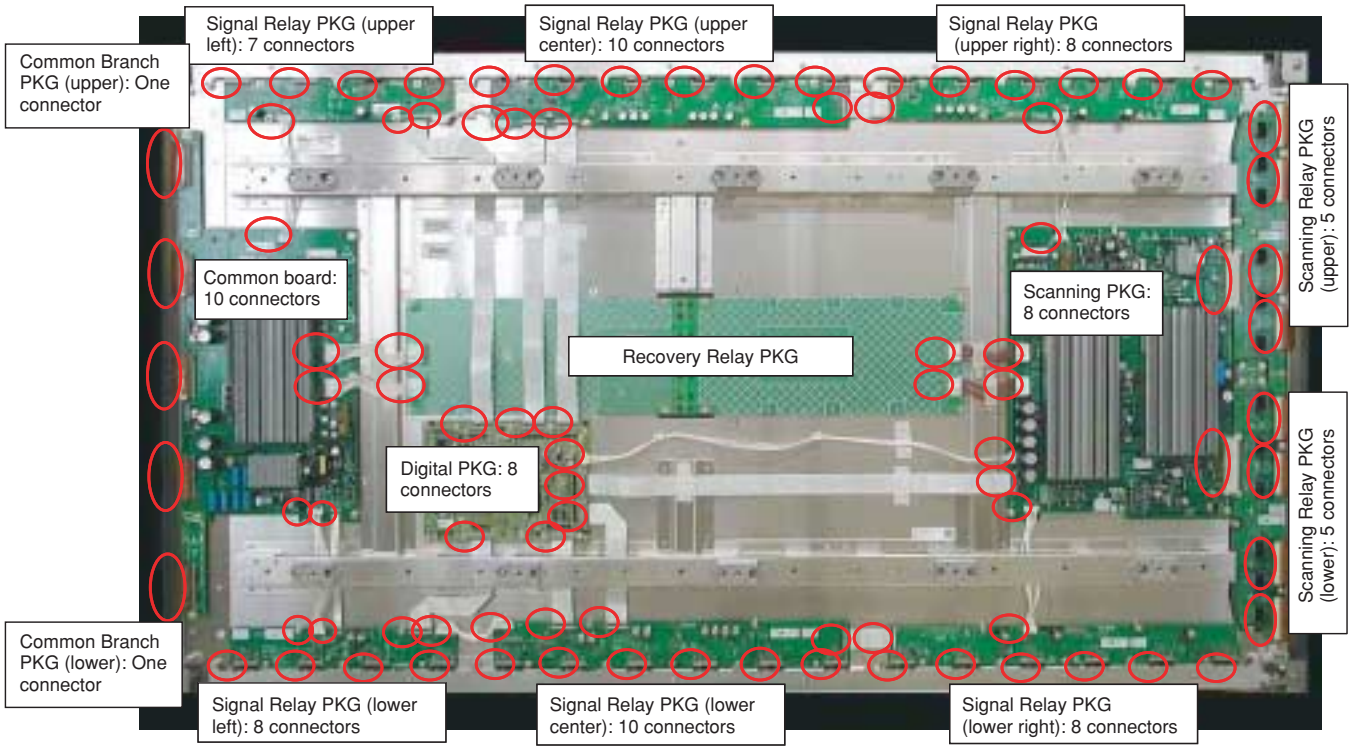
Preparation

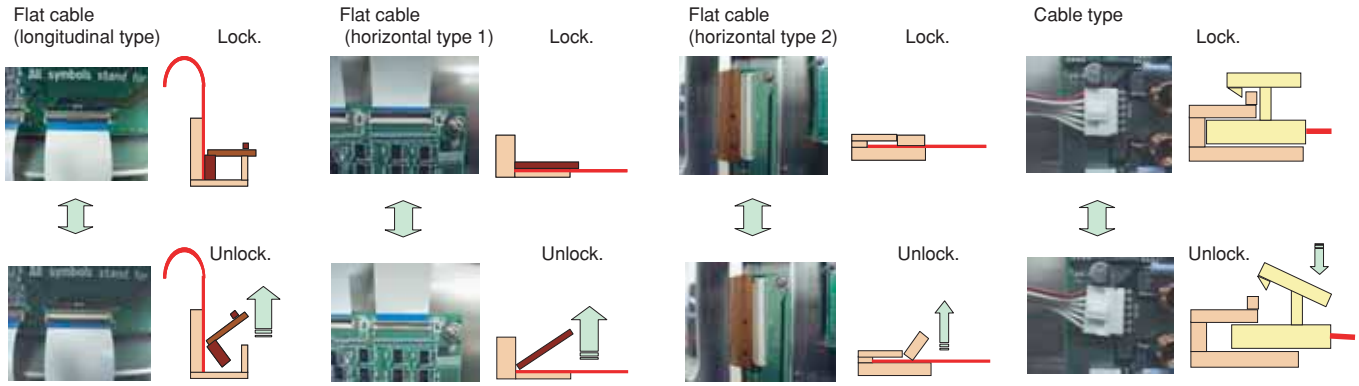
Place a cushion on the workbench and set the module to be repaired on it.
Note: With the glass surface facing downward, be sure that the entire glass surface is against the cushion.



Disconnection of connectors and cables

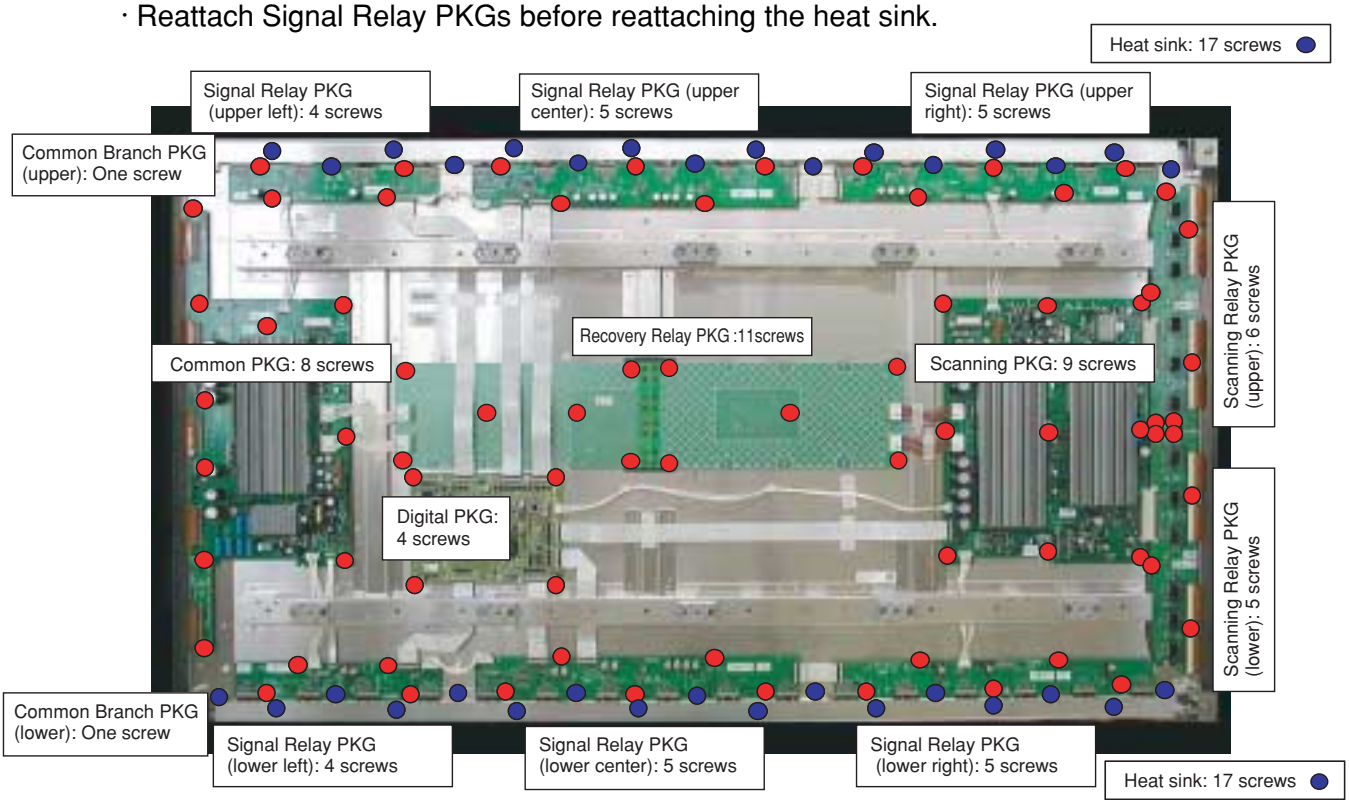
Disconnect all the connectors on the PKG to be repaired.
(When a Signal Relay PKG is to be removed, remove the heat sink beforehand.)





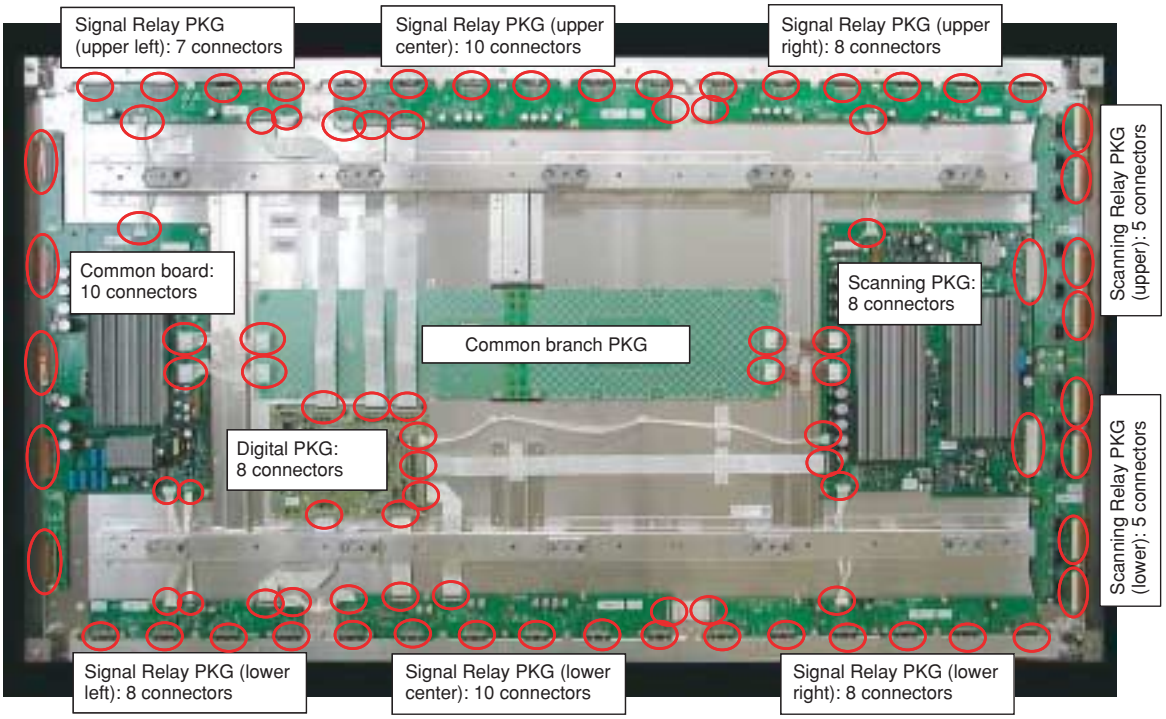
How to remove/reattach the Board Assy (PKGs)

Notes:
- Be sure not to drop a screwdriver or screw on a PKG or a cable.
- When removing/reattaching a screw, be sure not to leave any tiny metal shavings, because they may cause a failure.
- Before removing Signal Relay PKGs, remove the heat sink.
- Be sure not to apply any stress to a PKG, connector, or cable when reattaching them.
- Reattach Signal Relay PKGs before reattaching the heat sink.



Confirmation of connector connection

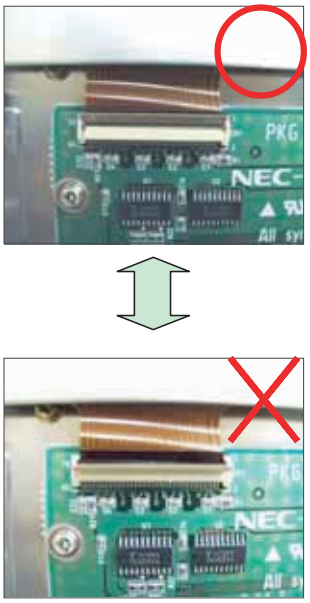
Check whether or not the connectors indicated by circles are correctly connected.



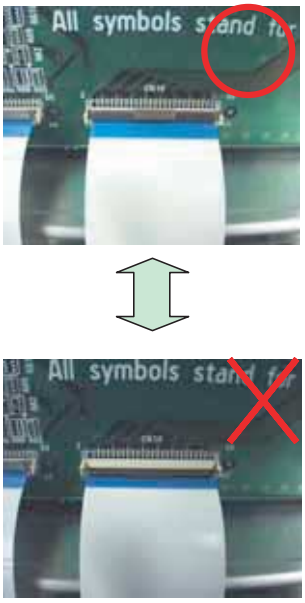
Confirmation of connector connection and locking statuses

○: OK ×: NG

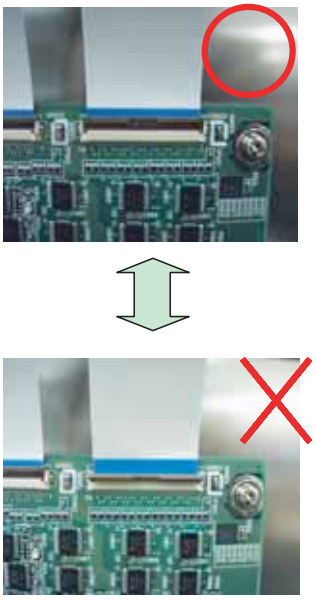
Between the Data IC and Signal Relay PKG (photo)



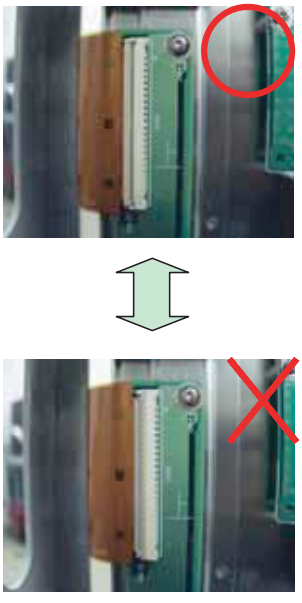
Between the Signal Relay PKG (photo) and Digital PKG



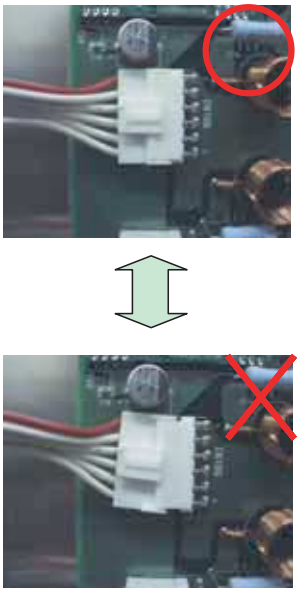
Between the Signal Relay PKG and Digital PKG (photo)



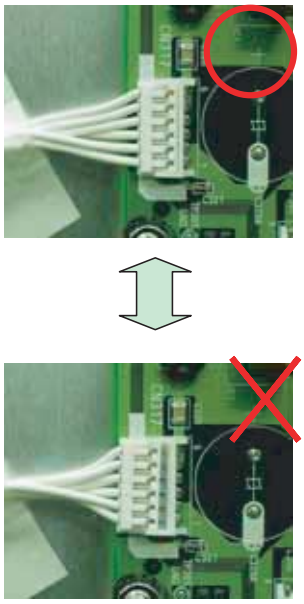
Between the panel and Common PKG (photo)



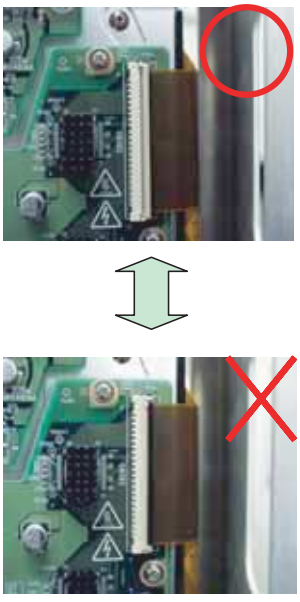
Between the Scanning PKG (photo) and Recovery Relay PKG



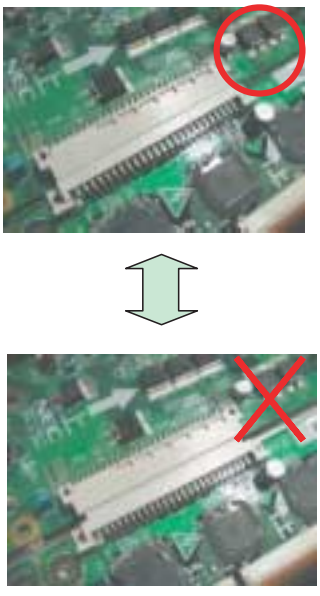
Between the Signal Relay PKG and Scanning PKG (photo)



Between the Scanning Relay PKG (photo) and panel

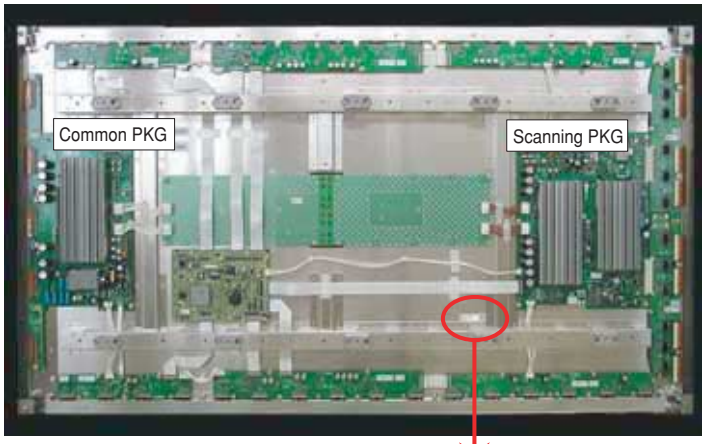


Between the Scanning PKG (photo) and Signal Relay PKG (photo)



4. Adjustments after replacement of parts in the module

After the module has been reassembled, adjust the panel-drive voltages as indicated below: Check Vbw, Vsw, and Vp voltages (values specific for each panel) indicated on the drive-voltage label.



Drive-voltage label

Vbw Vsw Vp

(s185.0 / d65.0)115.2/209.9/199.8

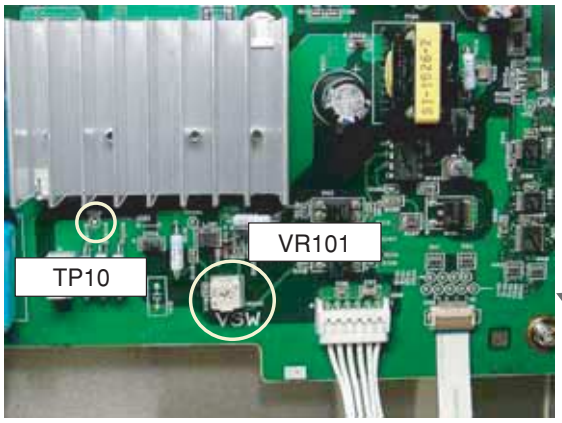
311200062

Example

Vbw : 115.2V
Vsw : 209.9V
Vp : 199.8V

Vsw adjustment inside the Common PKG

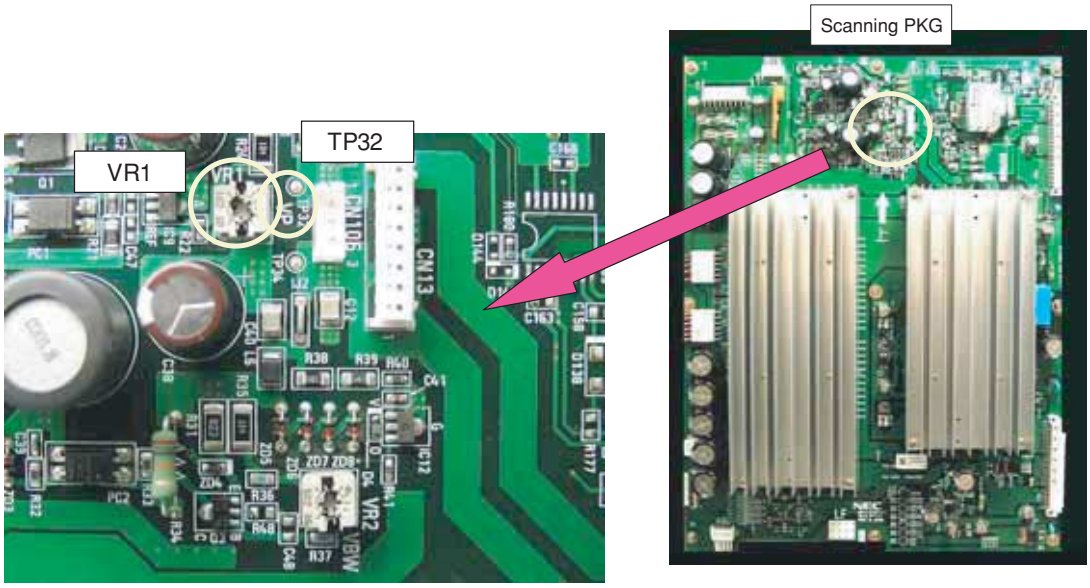
Points to measure: Voltage between TP10 and GND (chassis GND) on the Common PKG
Adjustment method: Adjust VR101 so that the Vsw value of TP10 becomes in the range of ±0.5 V of the Vsw value indicated on the drive-voltage label.





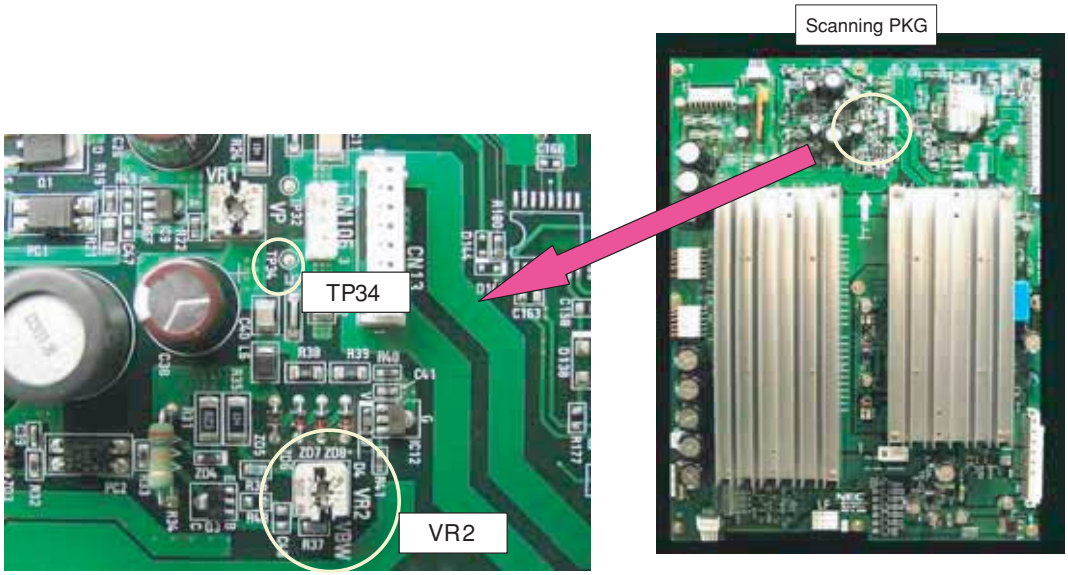
Vp adjustment inside the Scanning PKG

Points to measure: Voltage between TP32 and GND (chassis GND) on the Scanning PKG
Adjustment method: Adjust VR1 so that the Vp value of TP32 becomes in the range of ±1.5 V of the Vp value indicated on the drive-voltage label.



Vbw adjustment inside the Scanning PKG

Points to measure: Voltage between TP34 and GND (chassis GND) on the Scanning PKG
Adjustment method: Adjust VR2 so that the Vbw value of TP34 becomes in the range of ±0.5 V of the Vbw value indicated on the drive-voltage label.



5. Operation check

After replacing the module or parts inside the module, perform aging for 30 minutes or more while displaying a fully white screen.
After that, check the screen by displaying a fully red, fully green, and fully blue screen, color bars, and gray scale.

Note: If any flashing or luminescent spots are recognized during display check after a long period of storage of the module, perform aging with a fully white screen displayed for another hour or so.

Adjustment method in part replacement of the PDP module

After assembling the unit, perform the panel-drive voltage adjustment in the following order.

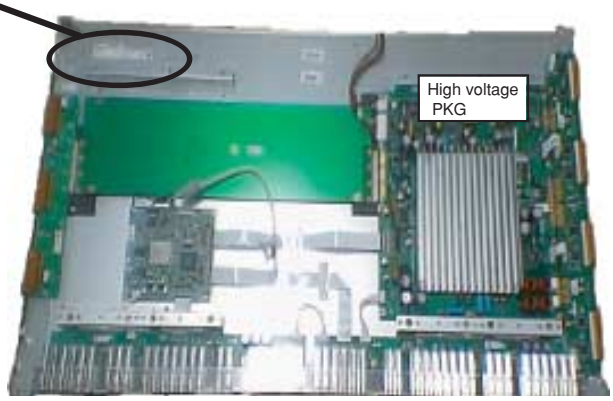
1. Check each voltage value (Vbw, Vsw, Vp and -Vw) in a drive voltage label (panel eigenvalue).

Drive voltage label Vbw/Vsw/Vp/-Vw

```
( s170.0/d65.0)
115.0/209.5/199.8/45

**********
31120839
```

Example
Vbw = 115.0V
Vsw = 209.5V
Vp = 199.8V
-VW = -45V



2. -Vw adjustment

Measuring point: The voltage between test point Vw on the high voltage PKG and GND (chassis GND)

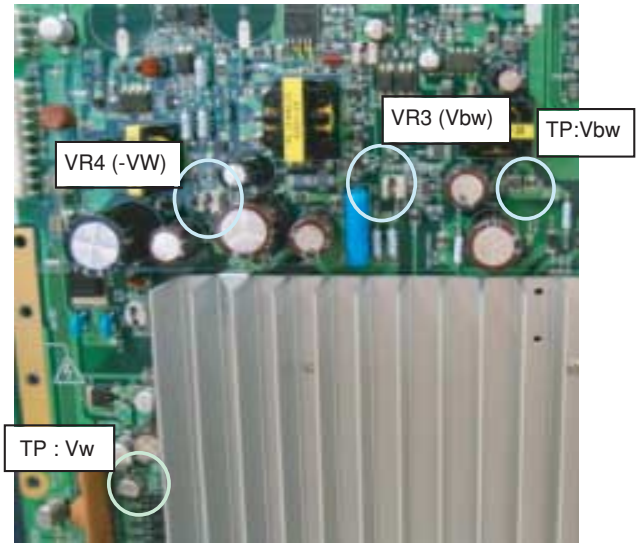
Adjustment: Adjust VR4 so that the voltage of Vw becomes Vw value of drive voltage label ± 0.5V.

3. Vbw adjustment

Note: Perform this adjustment after -Vw adjustment

Measuring point: The voltage between test point Vbw on the high voltage PKG and test point Vw

Adjustment: Adjust VR3 so that the voltage of Vbw becomes Vbw value of drive voltage label ± 0.5V.



4. Vsw adjustment

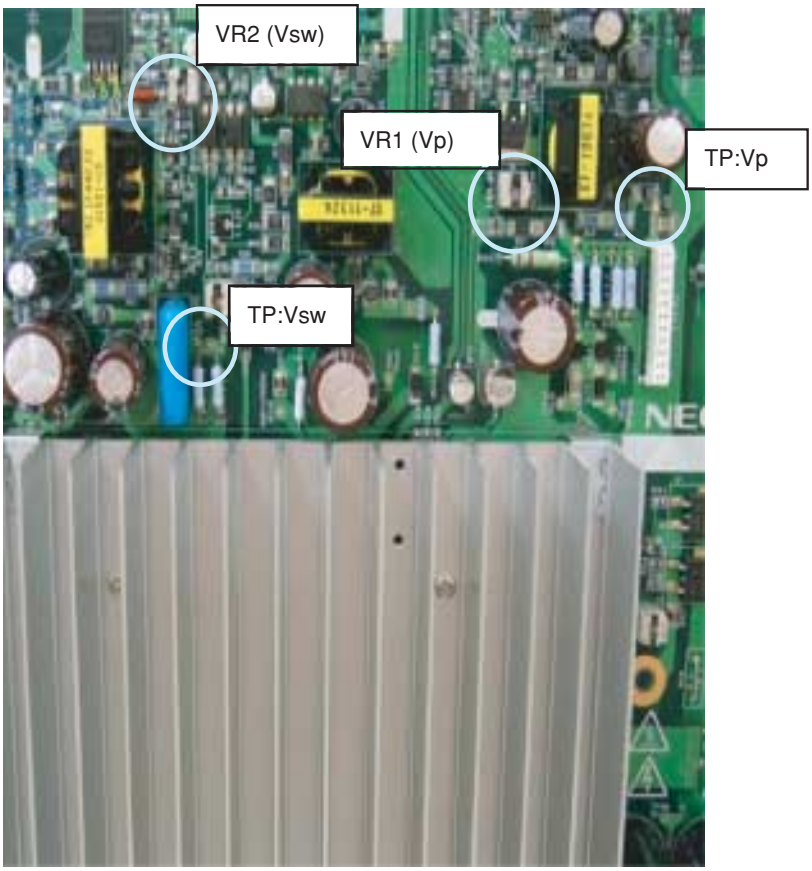
Measuring point: The voltage between test point Vsw on the high voltage PKG and GND (chassis GND)

Adjustment: Adjust VR2 so that the voltage of Vsw becomes Vsw value of drive voltage label ± 0.5V.

5. Vp adjustment

Measuring point: The voltage between test point Vp on the high voltage PKG and GND (chassis GND)

Adjustment: Adjust VR1 so that the voltage of Vp becomes Vp value of drive voltage label ± 0.5V.



6 OPERATION CHECKS

After replacing the PDP module or a part of the PDP module, perform aging with a fully white screen for 30 minutes or more. Then check the screen by displaying fully red, green, and blue screens, color bars, and gray scales.

Note: If any irregularity in lighting of cells of the screen is observed upon inspection after extended storage of the PDP, perform aging for another 1 hour or so with a fully white screen.

TROBLESHOOTING

• Problems in the power supply, such as "Failure in Power ON" or "LED flashing or lighting (alarm display)"

→ 1. Go to Power failure (P8-2).

• Problems in the images, such as "No pictures available"

→ 2. Go to Image errors (P8-8).

• No video loop-out signal is generated.

→ The MAIN PWB is faulty.

• "Remote control not effective"

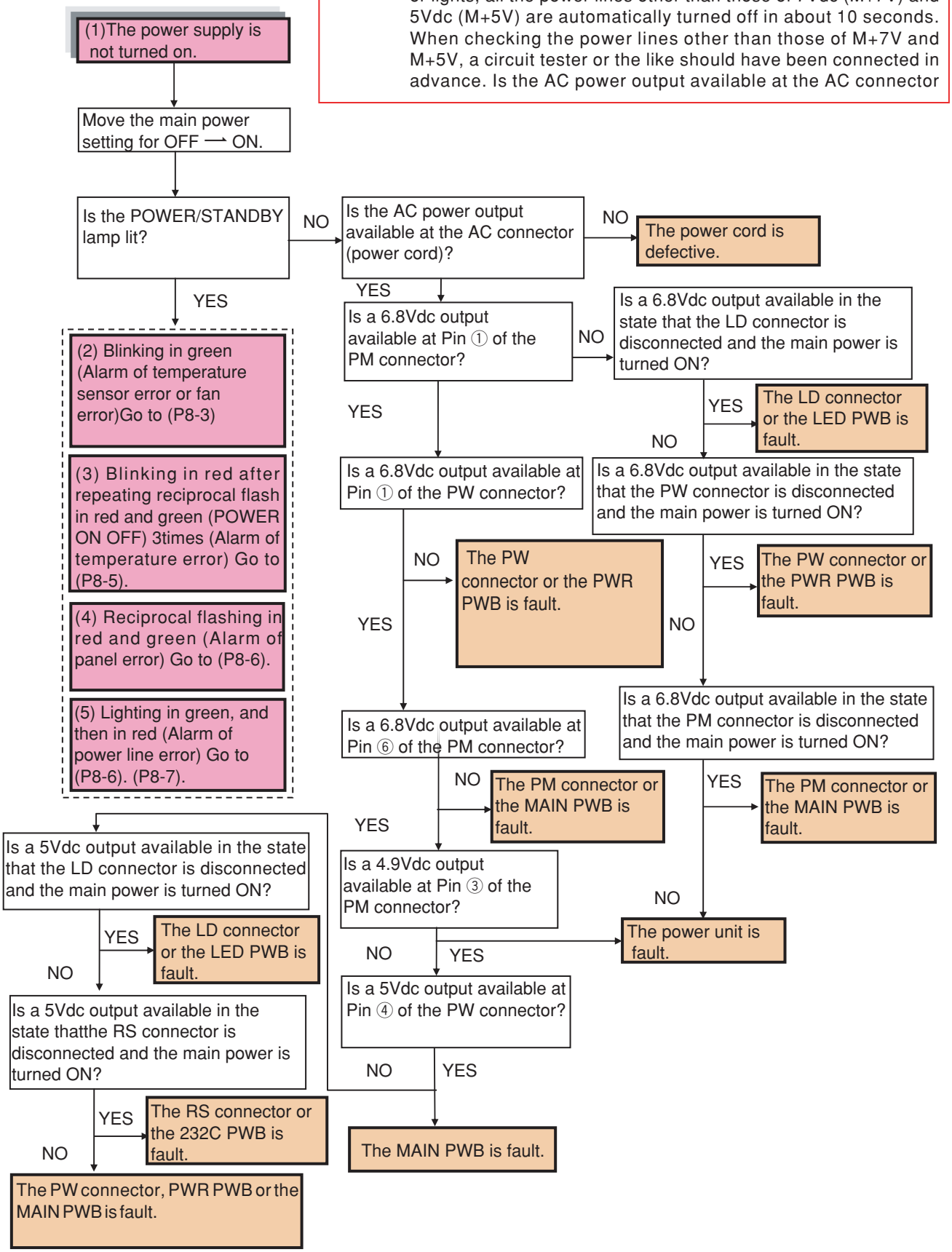
→ 3. Go to Audio errors (P8-16).

• "Remote control not effective"

→ 4. Go to Remote control not effective (P8-17).

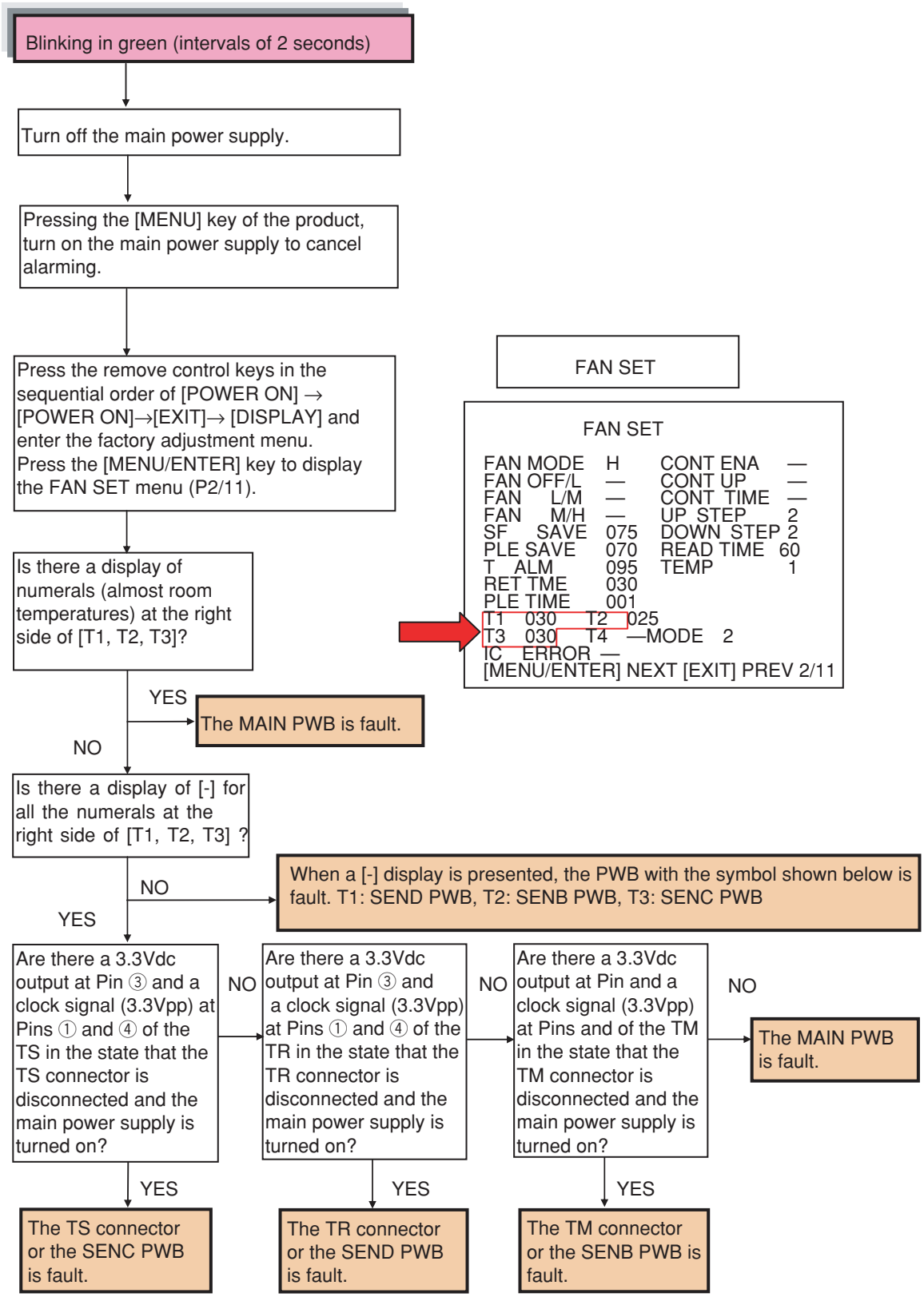
(1) Power failure

(Caution) If any abnormality is sensed in such a manner that the LED flashes or lights, all the power lines other than those of 7Vdc (M+7V) and 5Vdc (M+5V) are automatically turned off in about 10 seconds. When checking the power lines other than those of M+7V and M+5V, a circuit tester or the like should have been connected in advance. Is the AC power output available at the AC connector



(2) Blinking in green

Alarm of temperature sensor error



② Alarm of fan error

Blinking in green (intervals of 0.5 seconds)

Turn off the main power supply.

Pressing the [MENU] key of the product, turn on the main power supply to cancel alarming.

Is the fan running?
(Caution) When alarming is canceled, [FAN MODE] of FAN SET (P2/11) in the factory adjustment menu automatically moves from [ENA] to [H], thus causing the fan to run.

FAN SET

FAN MODE	ENA	CONT ENA	—
FAN OFF/L	—	CONT UP	—
FAN L/M	—	CONT TIME	—
FAN M/H	—	UP STEP	2
FAN SAVE	075	DOWN STEP	2
PLE SAVE	070	READ TIME	60
T ALM	095	TEMP LEVEL	1
RET TME	030		
PLE TIME	001		
T1 030	T2 025		
T3 030	T4 —	MODE	2
IC ERROR	—		

[MENU/ENTER] NEXT [EXIT] PREV 2/11

FAN SET

FAN MODE	H	CONT ENA	—
FAN OFF/L	—	CONT UP	—
FAN L/M	—	CONT TIME	—
FAN M/H	—	UP STEP	2
FAN SAVE	075	DOWN STEP	2
PLE SAVE	070	READ TIME	60
T ALM	095	TEMP LEVEL	1
RET TME	030		
PLE TIME	001		
T1 030	T2 025		
T3 030	T4 —	MODE	2
IC ERROR	—		

[MENU/ENTER] NEXT [EXIT] PREV 2/11

YES

Is there a 3.3Vdc output at Pin ③ of the FA and FB, FC connectors?

YES

The fan is out of order on the side where a 3.3Vdc output is generated.

NO

NO

Is there a voltage output of 11.3Vdc for PX-42XM3/XR3, 11.2Vdc for PX-50XM4/XR4, and 9.3Vdc for PX-61XM3/XR3, respectively, at Pin 1 of the FA, FB, and FC connectors?

The MAIN PWB is fault.

NO

YES

The FAN-A/FAN-B/FAN-C is fault.

(Caution) The FAN-C and FC connectors are used only for the 61XM3 Series.

Is there a voltage output of 11.3Vdc for PX-42XM3/XR3, 11.2V dc for PX-50XM4/XR4, and 9.3Vdc for PX-61XM3/XR3, respectively, when the FA connector is disconnected and the mains power is turned ON?

NO

Is there a voltage output of 11.3Vdc for PX-42XM3/XR3, 11.2Vdc for PX-50XM4/XR4, and 9.3Vdc for PX-61XM3/XR3, respectively, when the FB connector is disconnected and the mains power is turned ON?

NO

Is there a voltage output of 11.3Vdc for PX-42XM3/XR3, 11.2Vdc for PX-50XM4/XR4, and 9.3Vdc for PX-61XM3/XR3, respectively, when the FC connector is disconnected and the mains power is turned ON?

YES

YES

YES

NO

The MAIN PWB is fault.

The FAN-A is fault.

The FAN-B is fault.

The FAN-C is fault.

(Caution) In the FAN MODE, [ENA] is automatically recovered when the main power is turned OFF→ON.

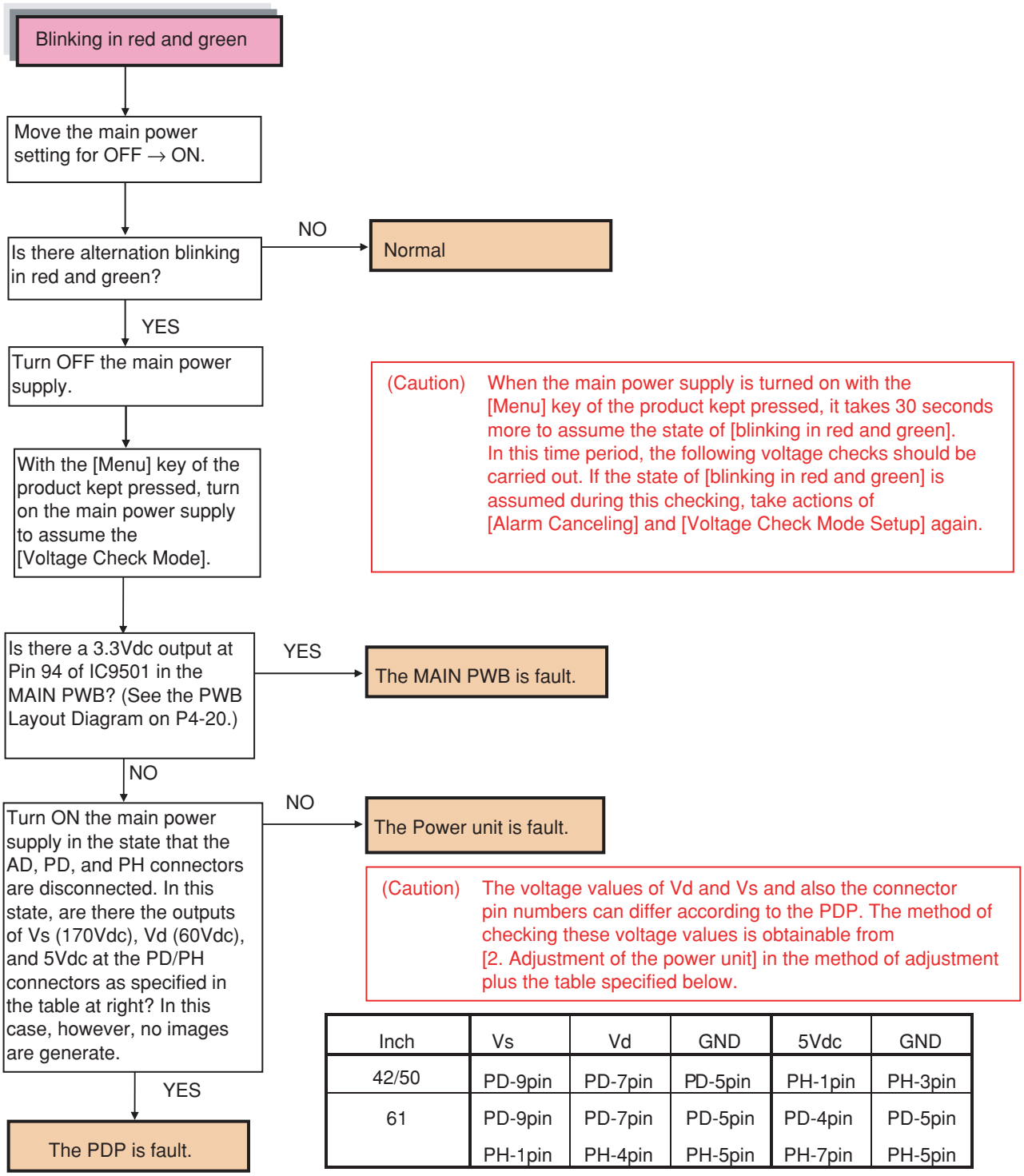
(3) Blinking in red (Alarm of temperature error)

Since the internal temperature is too high in the product, the temperature protector has been actuated. In such a case, the following actions should be taken immediately:

1. Turn off the main power supply and pull out the power cord from the wall outlet.
2. Wait for about 60 minutes until the temperature in the main unit lowers.
3. Check whether the heat discharge port is covered with dust or the like. If yes, remove the clogging substance.
4. If the unit is used where the ambient temperature is high, it should be moved to an adequate place (air temperature ranging from 5°C to 35°C).

(4) Alternation blinking in red and green (Alarm of PDP error)

(Caution) How to reset the alarming condition Pressing the [Input Select] key of the product, turn on the main power supply of the main unit. In this state, keep pressing the [Input Select] key for more than 2 seconds until alarming is canceled. Make confirmation by the method specified below.

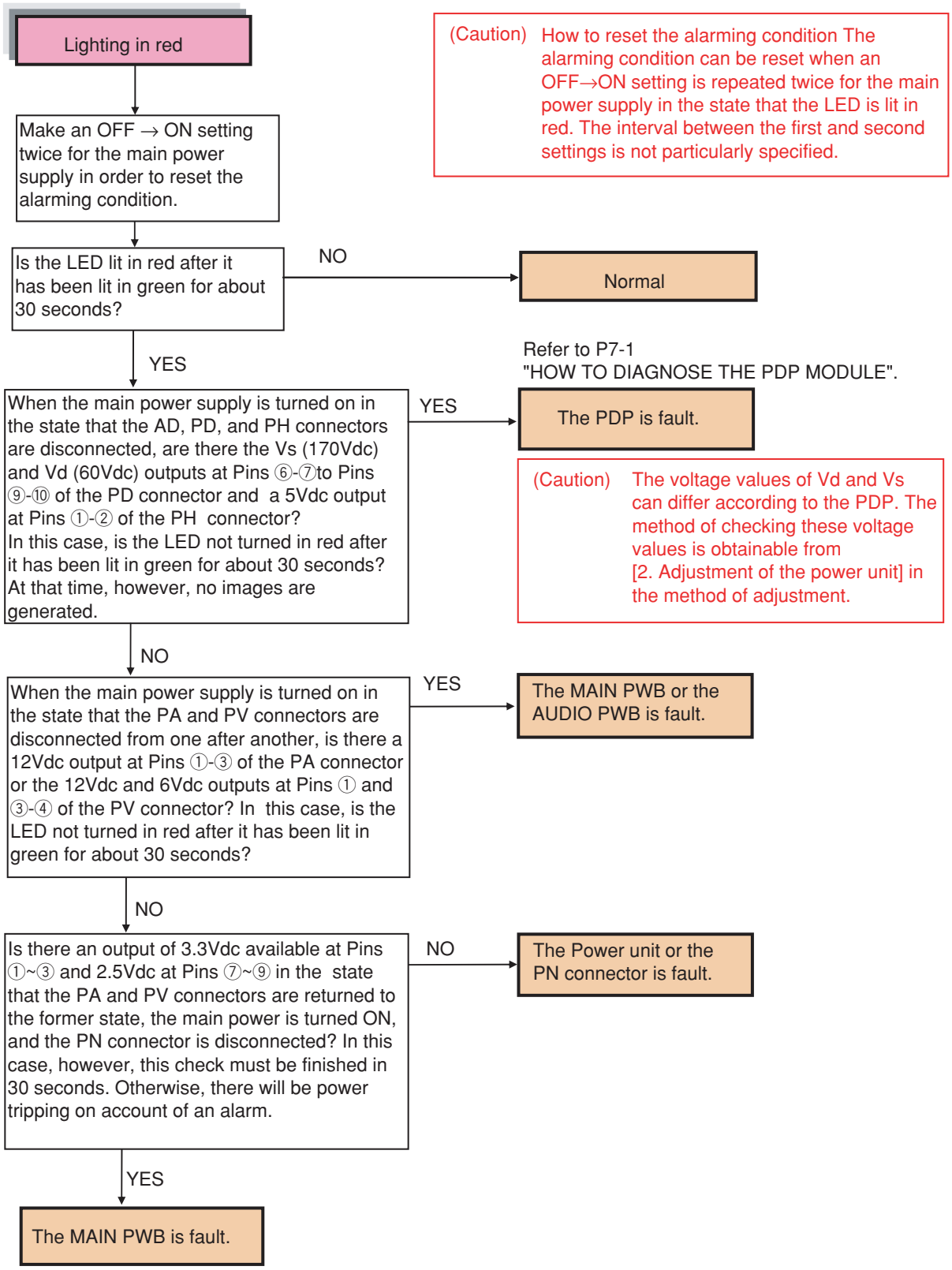


Inch	Vs	Vd	GND	5Vdc	GND
42/50	PD-9pin	PD-7pin	PD-5pin	PH-1pin	PH-3pin
61	PD-9pin PH-1pin	PD-7pin PH-4pin	PD-5pin PH-5pin	PD-4pin PH-7pin	PD-5pin PH-5pin

(Refer to P7-1 "HOW TO DIAGNOSE THE PDP MODULE".)

(5) Lighting in green, and then in red (Alarm of power voltage error)

Unlike [lighting in red] in the STANDBY mode, [lighting in green] continues for about 30 seconds without any output of images and audio signals. Since then, the mode turns into [lighting in red].



2. Image errors

(Caution) Typical abnormal images are shown below. All errors do not always fall on these error samples.

(1) Image burn and deterioration in brightness

Residual images are seen without signal entry.

This is not a fault.



No signal

Deterioration in brightness

This is not a fault.



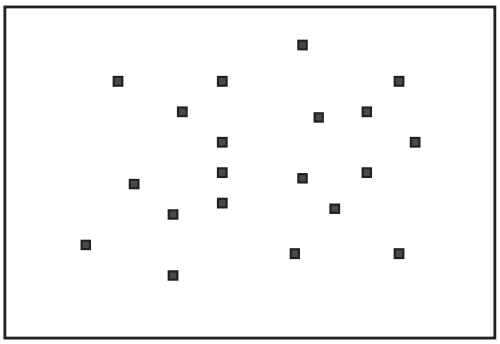
All-whitesignal

(2) Failure in writing

Failure in writing

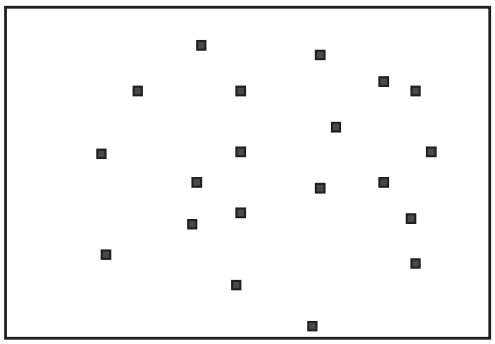
The PDP is fault.

Refer to P7-1 "HOW TO DIAGNOSE THE PDP MODULE".)



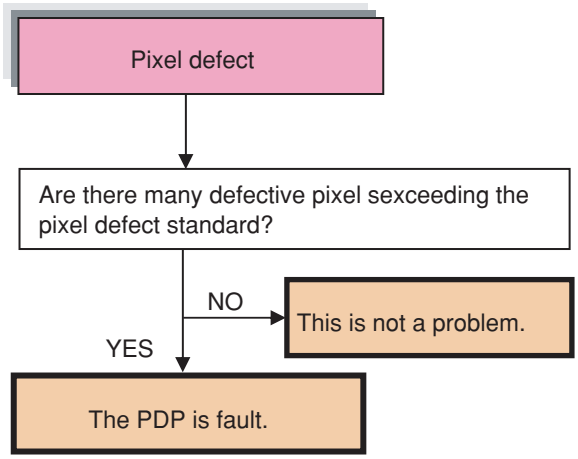
All-whitesignal

Dot errors change with no continuity.

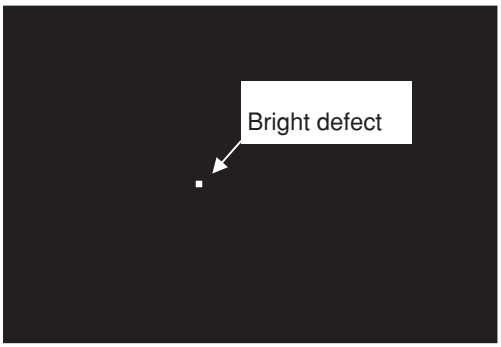


All-w

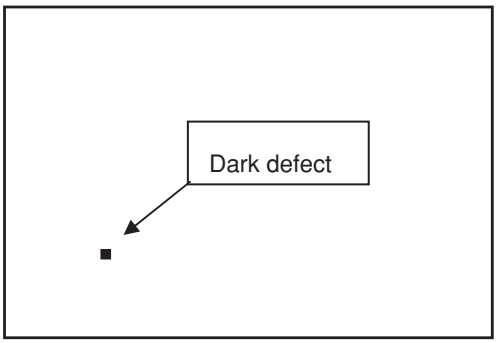
(3) Pixel defect



(To the separate PDP service manual)



(Fig. 1) All-Black Signal



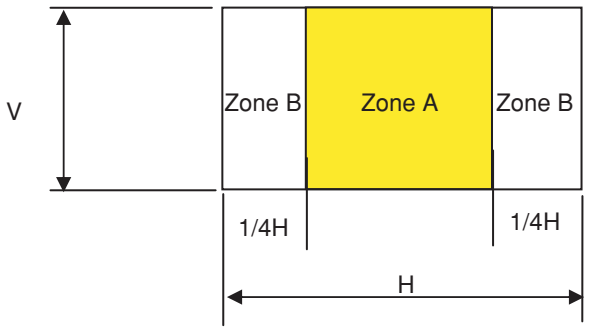
(Fig. 2) All-White Signal

[Pixel defect standard for reference]

	Displayed image	Pixel defect standard	
		Non-continuous Continuous	Continuous
Bright defect	Black all over the screen (Fig. 1)	Zone A:□dots or less in all for each color Zone B:□dots or less in all for each color	Continuous □dots or less
	Red level 100% over the screen	Zone A:□dots or less in all for each color Zone B:□dots or less in all for each color Each zone:□dots or less for each uni-color	Defective when □dots or less are continuously horizontal and seen white.
	Green level 100% over the screen		
	Blue level 100% over the screen		
Dark defect	Red level 100% over the screen	Zone A:□dots or less in all for each color Zone B:□dots or less in all for each color	Zone A:□dots or less vertically continuous Zone B:□dots or less continuous Except for the continuous portions, however, the distance between dark dots shall be □cm or more.
	Green level 100% over the screen		
	Blue level 100% over the screen		
	White all over the screen (Fig. 2)	—	Zone A:□dots continuous in one portion or less (□dots for vertical continuity) Zone B:□dots or less continuous Except for the continuous portions, however, the distance between dark dots shall be □cm or more.

(Caution) In regard to the full information, refer to the PDP quality updating report (Japan) or the PDP quality report (other than Japan).

<For the 42XM3/XR3>



(Caution1) Zone A: Central part (the area surrounded by the right and left sides by 1/4H) with the area that is 1/2 of the whole Zone B: Area other than A above

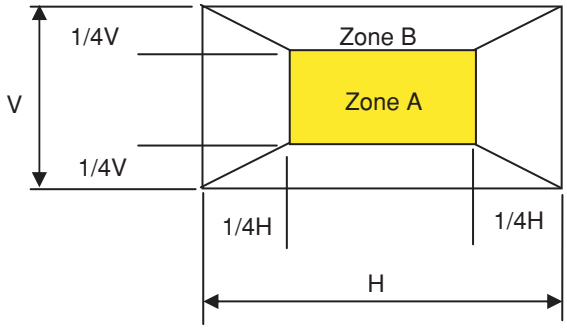

→ 3 dots continuous


→ 3 dots continuous


→ 4 dots continuous

(Caution2) The continuous dots appearing in the slantwise direction or in a cluster state shall be defined as follows:

<For the 42VM5/VP5>



(Caution1) Zone A: Central part (the area surrounded by the upper and lower sides, right and left sides by 1/4H) with the area that is 1/2 of the whole
Zone B: Area other than A above

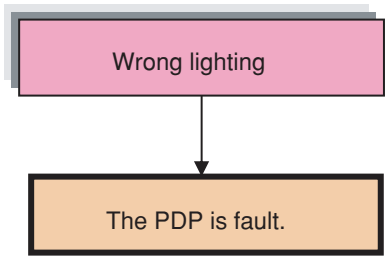

→ 3 dots continuous


→ 3 dots continuous

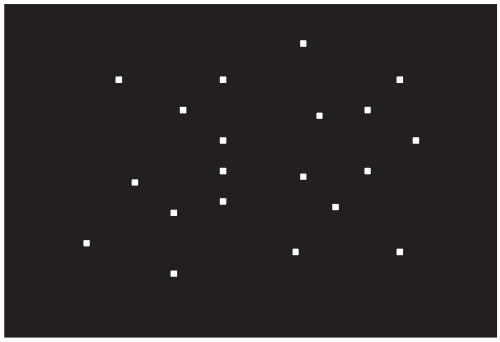

→ 4 dots continuous

(Caution2) The continuous dots appearing in the slantwise direction or in a cluster state shall be defined as follows:

(4) Wrong lighting

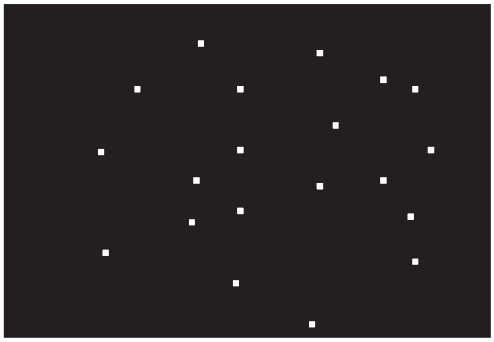


(Refer to P7-1 "HOW TO DIAGNOSE THE PDP MODULE".)



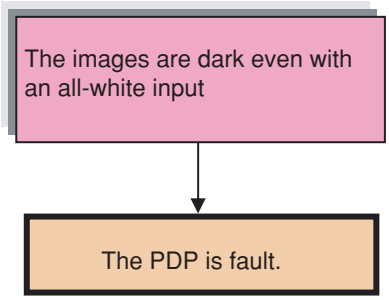
All-black signal

Dot errors change with no continuity.



All-black signal

(5) Dark images [Other than the deterioration in brightness as per (1) above]

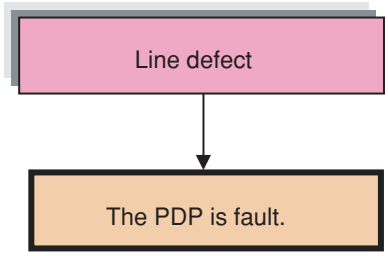


(Refer to P7-1 "HOW TO DIAGNOSE THE PDP MODULE".)

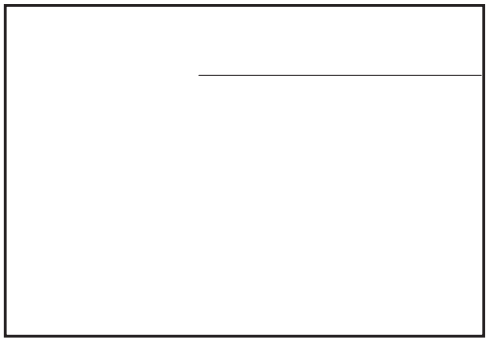


All-white signal

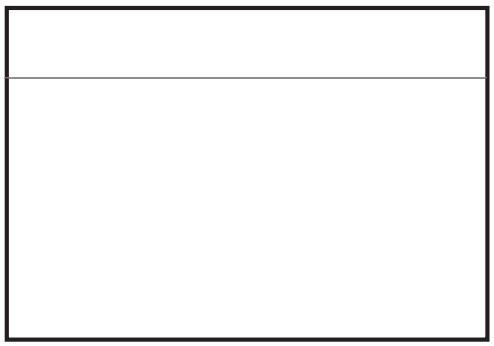
(6) Defect in horizontal lines



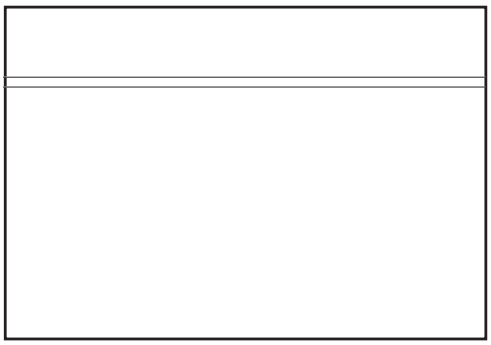
(Refer to P7-1 "HOW TO DIAGNOSE THE PDP MODULE".)



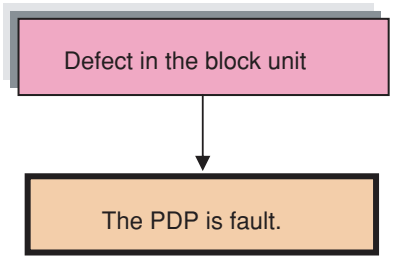
All-white signal



All-white signal



All-white signal



(Refer to P7-1 "HOW TO DIAGNOSE THE PDP MODULE".)

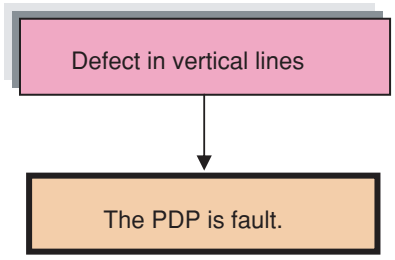


All-white signal

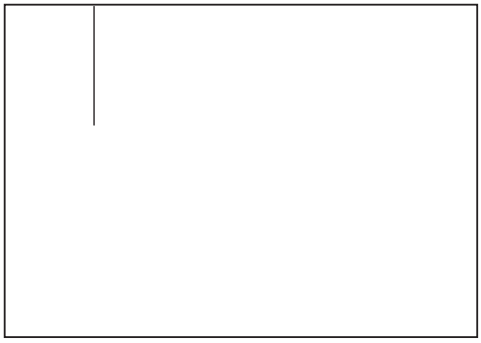


All-white signal

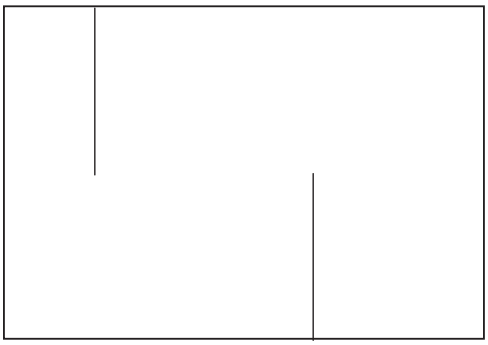
(7) Defect in vertical lines



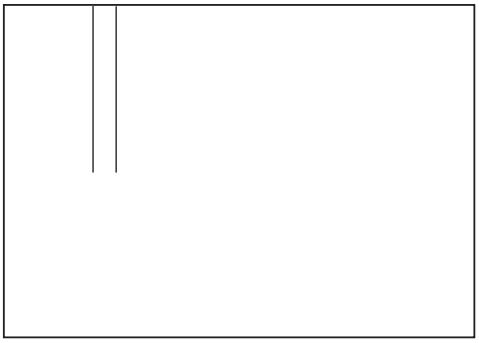
(Refer to P7-1 "HOW TO DIAGNOSE THE PDP MODULE".)



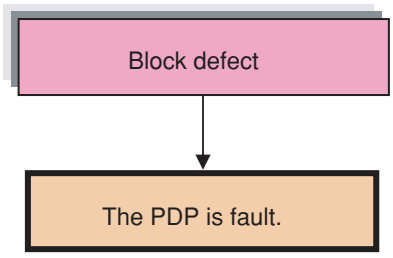
All-white signal



All-white signal



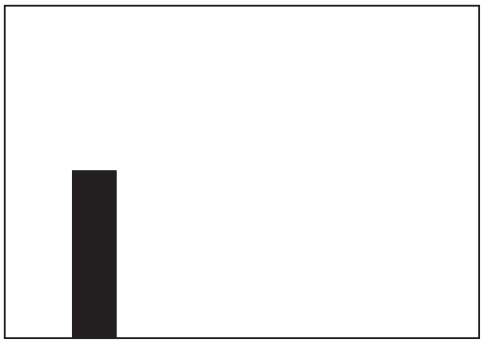
All-white signal



(Refer to P7-1 "HOW TO DIAGNOSE THE PDP MODULE".)



All-white signal

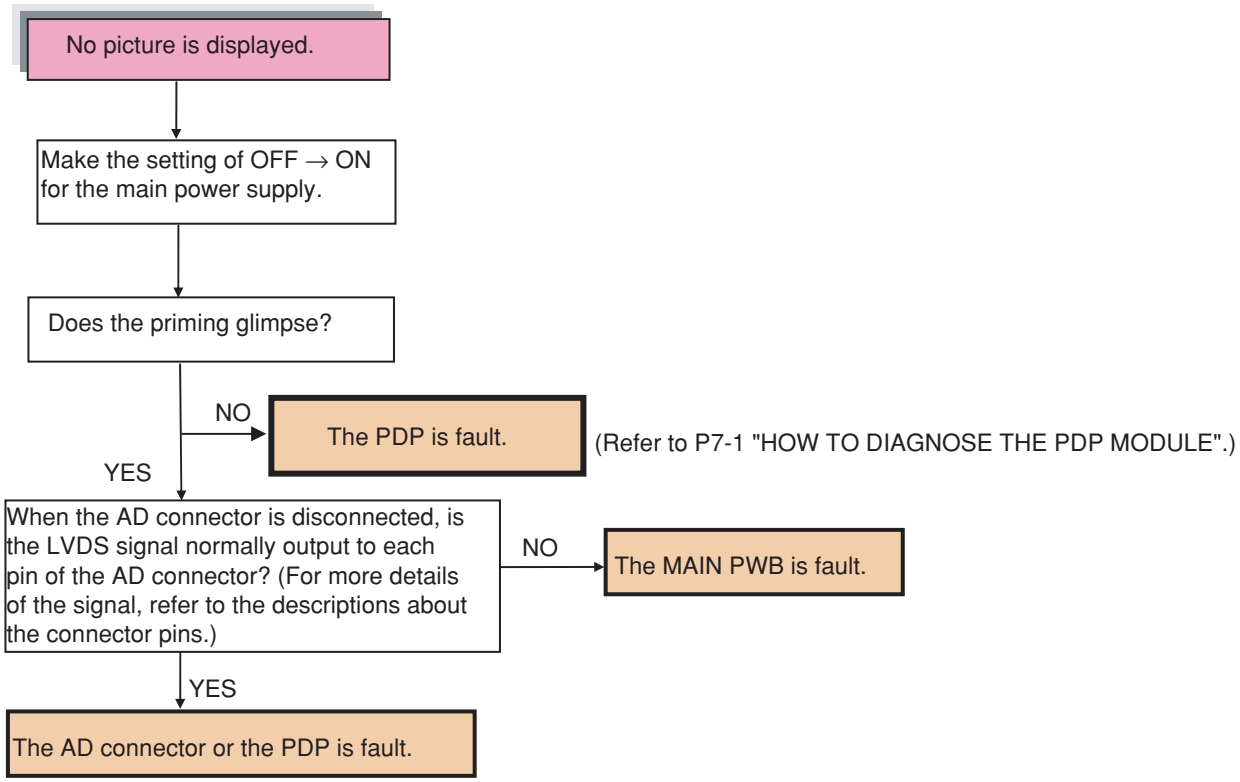


All-white signal



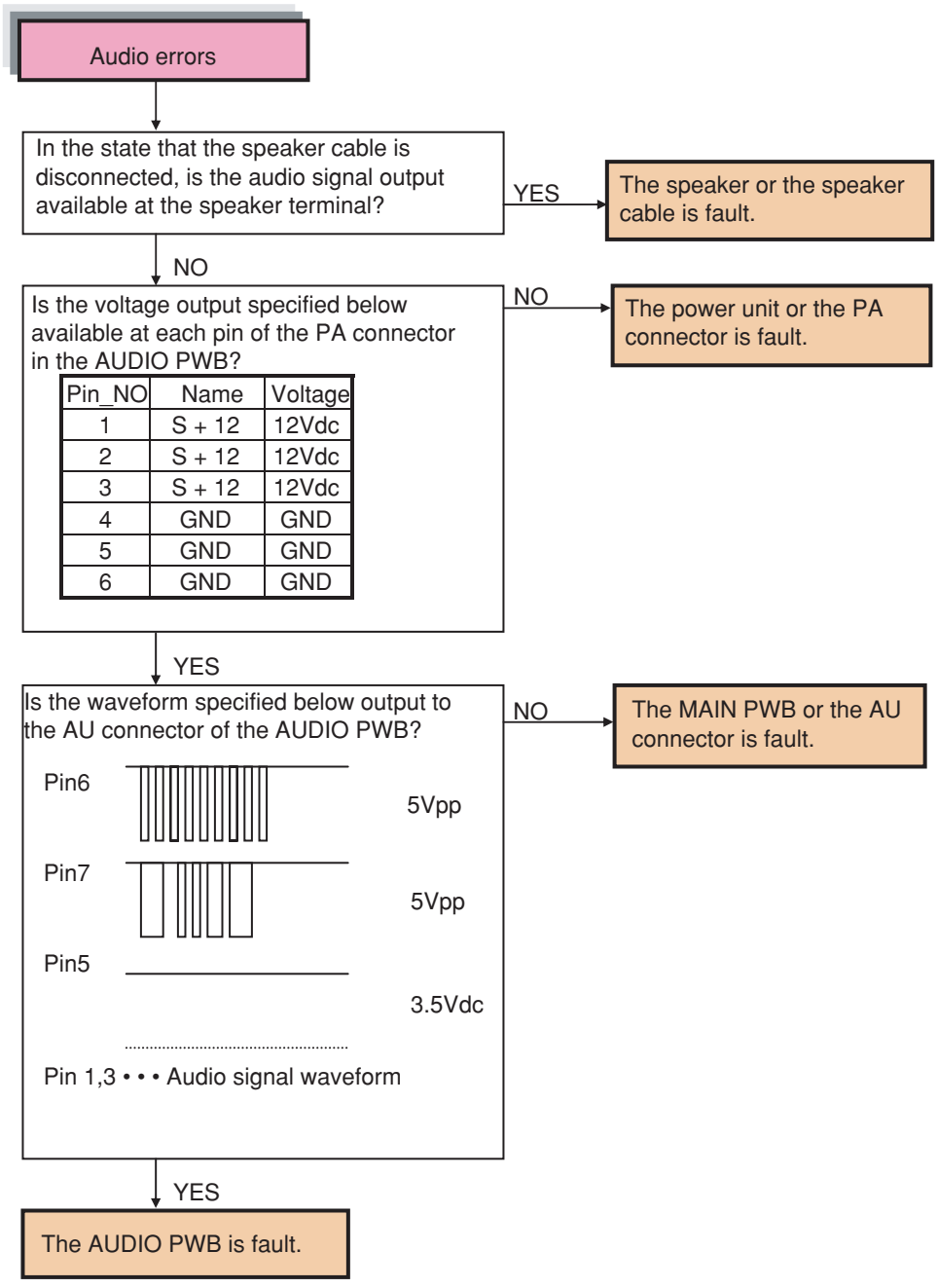
All-white signal

(8) No pictures [(Caution) The voltage outputs of Vs = 170V and Vd = 64V, 5Vdc are always generated, but the LED is not flashing or lighting for alarming. However, the voltage values can differ according to the MODULE.]



3. Audio errors

(Caution) In regard to the method of audio input setting, refer to the specifications and the instruction manual to confirm that all the setting is free from errors. Since then, troubleshooting can be carried out. It must be noted that the protector functions and no audio output is available if the opposing electrodes of the speaker output or the speaker output and the ground (GND) are short-circuited. In such a case, turn off the main power supply and make the connections correctly. The protector is reset when the main power supply is turned on after that



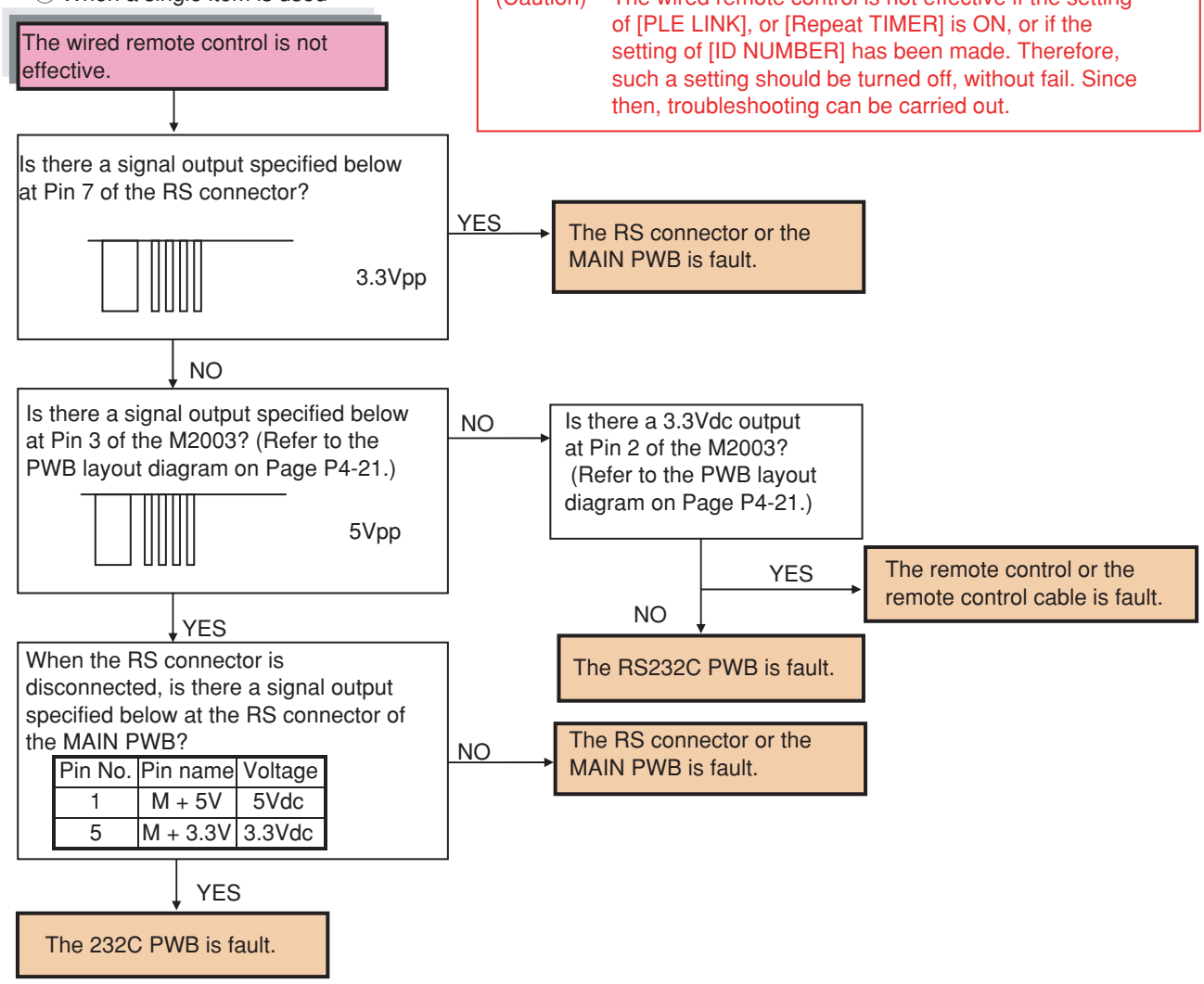
Pin_NO	Name	Voltage
1	S + 12	12Vdc
2	S + 12	12Vdc
3	S + 12	12Vdc
4	GND	GND
5	GND	GND
6	GND	GND

4. Remote control not effective

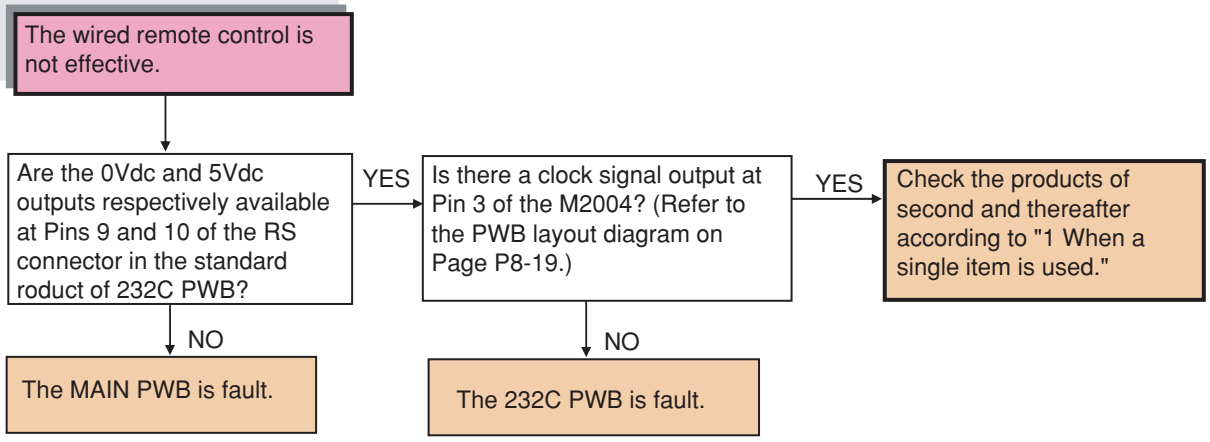
(1) The wired remote control is not effective.

① When a single item is used

(Caution) The wired remote control is not effective if the setting of [PLE LINK], or [Repeat TIMER] is ON, or if the setting of [ID NUMBER] has been made. Therefore, such a setting should be turned off, without fail. Since then, troubleshooting can be carried out.

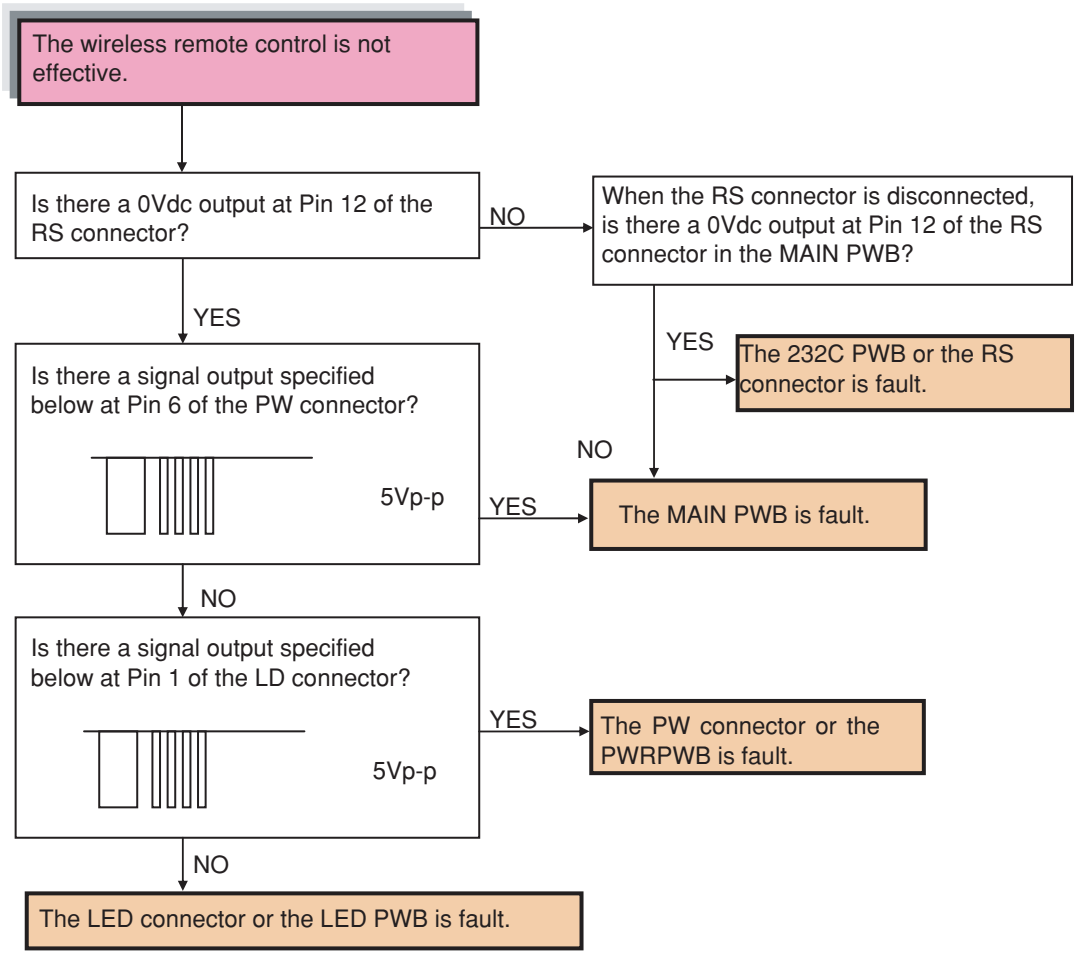


② When a daisy chain (including the video wall) is used



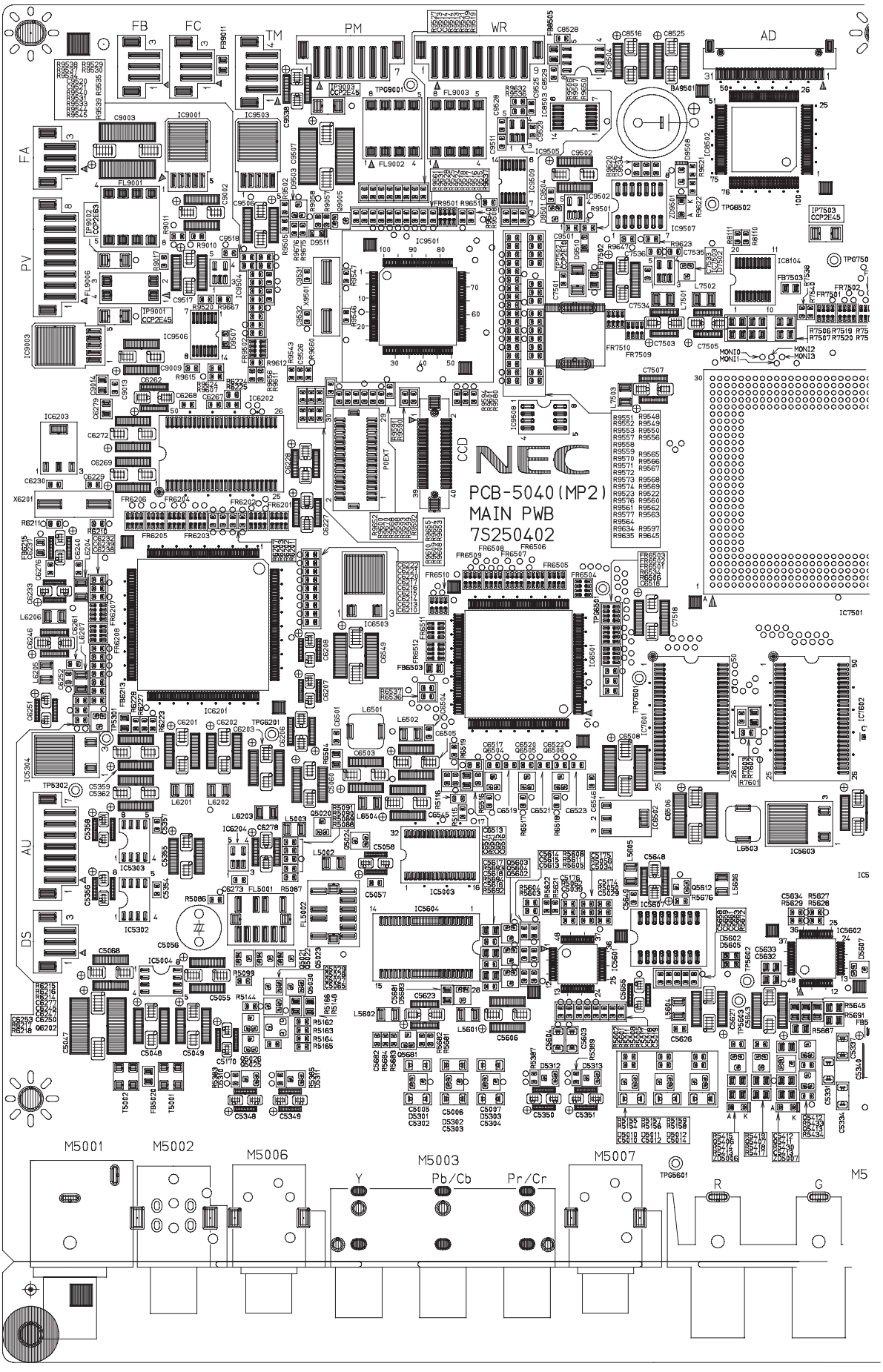
(2) The wireless remote control is not effective.

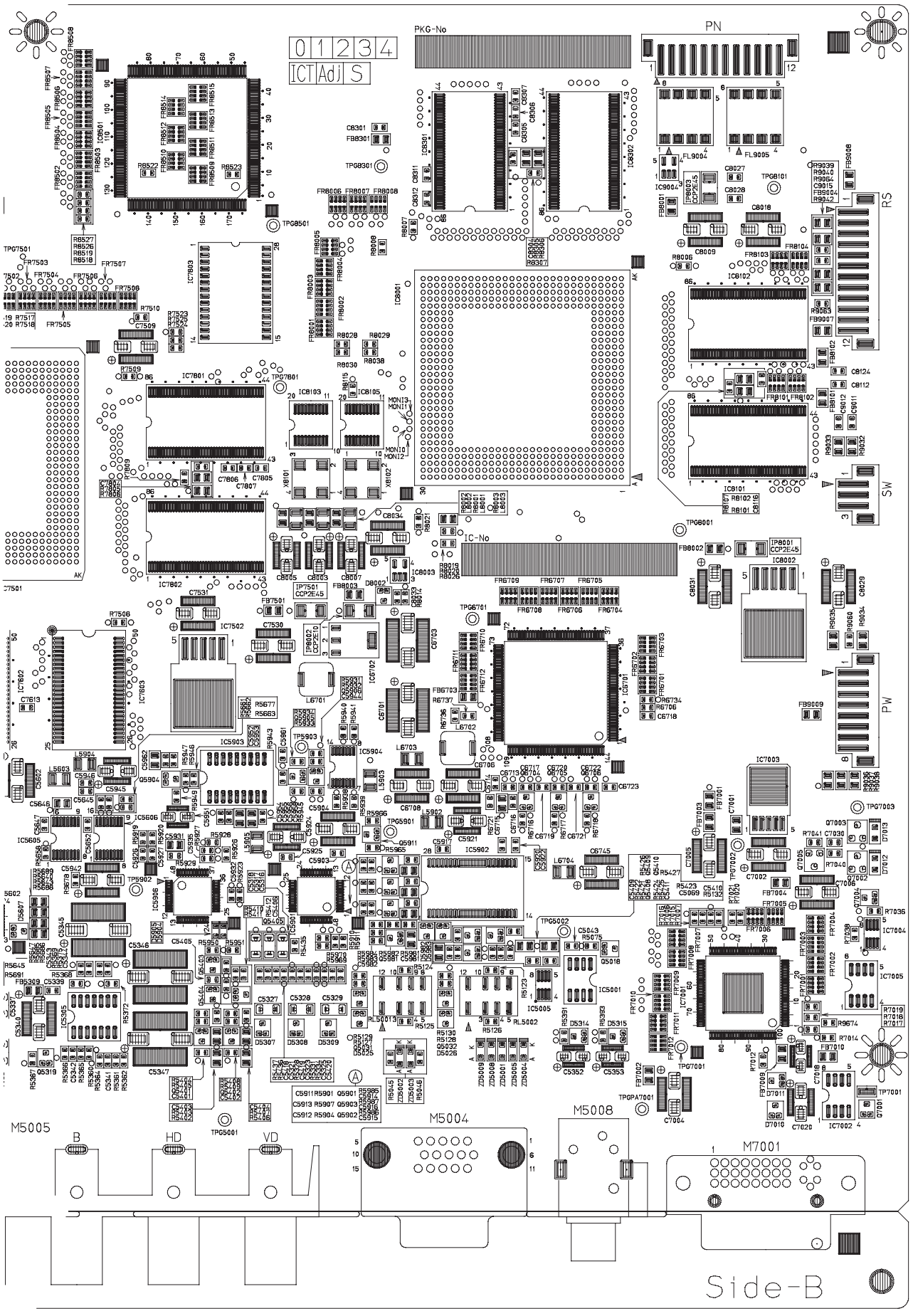
(Caution) Since the detection of "wired" or "wireless" is conducted for the remote control through the remote terminal, it is necessary to pull out the remote control cable from the remote terminal, without fail. Troubleshooting should be carried out after confirming that "IR REMOTE" is set at ON and that "ID NUMBER" is at ALL according to the user's menu.



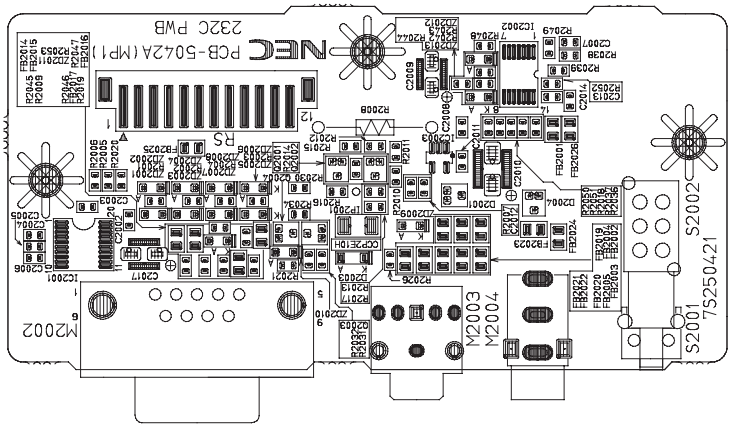
Check point

MAIN PWB

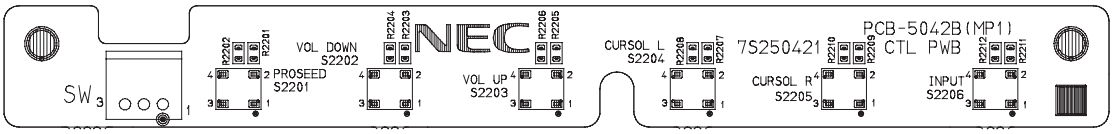



PKG-No
PN
0 1 2 3 4
ICT Adj S
RS
SW
PW
IC-No
M5005
B
HD
VD
M5004
M5008
M7001
Side-B

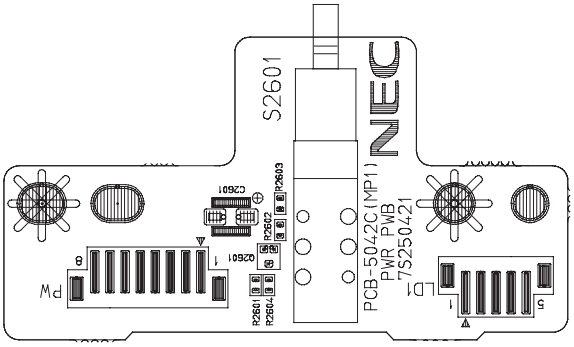
232C PWB



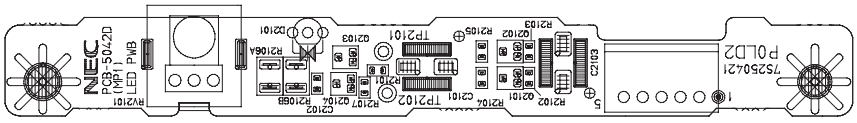
CLT PWB



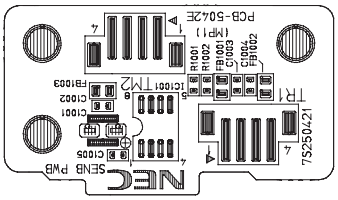
PER PWB



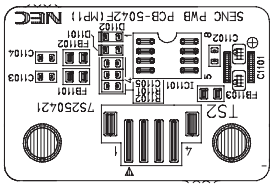
LED PWB



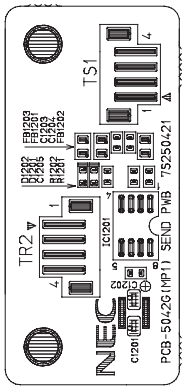
SENB PWB



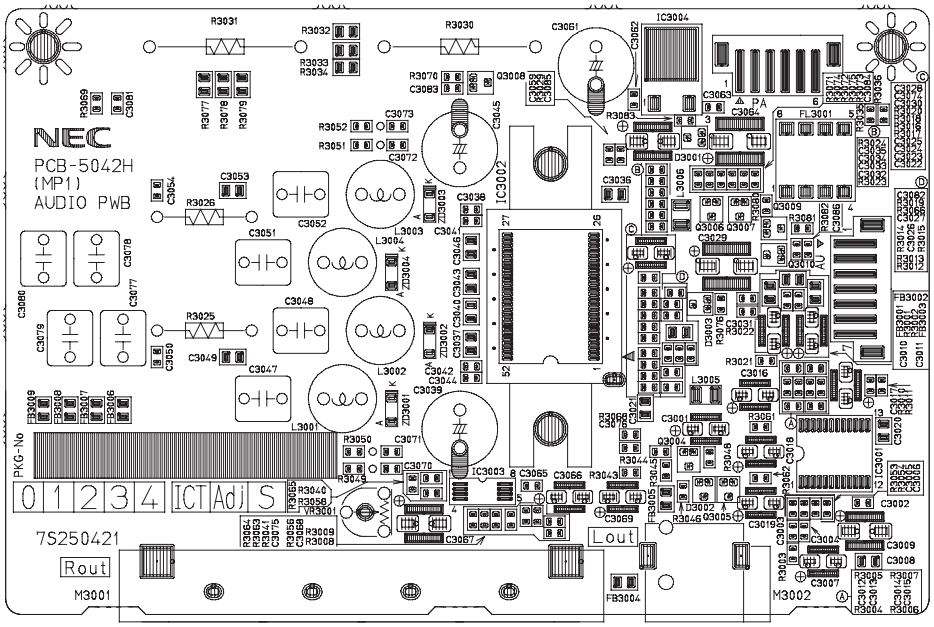
SENC PWB



SEND PWB



AUDIO PWB



METHOD OF ADJUSTMENTS



■ Adjusting conditions

Adjustments should be carried out in the procedures of A to C specified below. However, any adjustments other than the items A to C below are not required.

A. When the "PDP module (PDP-NP61C2MF01)" is replaced, adjustmentsshould conform to the adjusting items of [1 and 2] specified below.

B. When the ìPOWER UNITî is replaced, adjustments should conform to the adjusting item of [2] specified below.

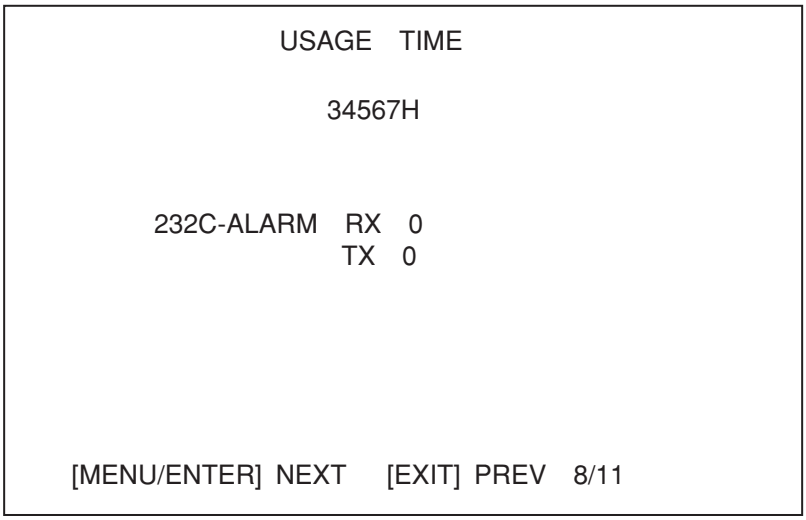
C. When the ìMAIN PWBî is replaced, adjustments should conform to the adjusting item of [3] specified below.

■ Adjusting items

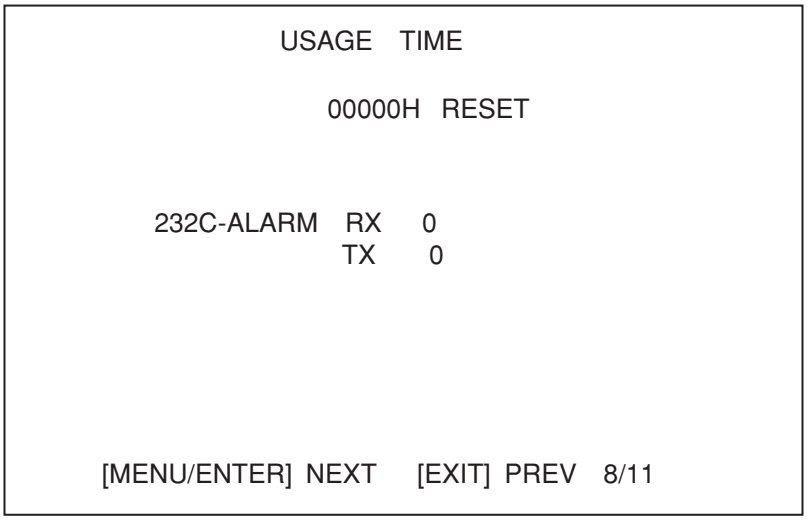
1. Clearing of the usage time (Using the remote control)

(1) Press the keys in the order of [POWER ON] → [POWER ON] → [EXIT] → [DISPLAY] in order to enter the factory adjustment menu.

(2) Press the [MENU/ENTER] key to select the [USAGE TIME] menu (8/11). Then, the integrated time [34567 (hours)] (example) accumulated till the present time is displayed when the main power supply is turned on (except for the standby mode).



(3) When the keys are pressed in the order of [MUTE] → POSITION/CONTROL [▲] → POSITION/CONTROL [▼] → [OFF TIMER], the display is cleared to [00000H]. At that time, the characters of [RESET] are displayed for about 5 seconds on the right side of time display.



2. Adjustment of the power unit (Using a screwdriver for general-purpose adjustments)

2-1. Adjustment of the Vs voltage

(1) Enter a color bar input by means of either video signal of VIDEO input, or DVD/HD input, or RGB input, and turn on the power switch of the main unit.

(2) Turn the volume control (RV6) in the power unit and make adjustments until the voltages of CH2 and CH1 (D, GND) of the power unit attain the voltage values specified for the PDP (Vs value of the voltage regulation indicator label on below the figure) ±1V.

2-2. Adjustment of the Vd voltage

(1) Enter a color bar input by means of either video signal of VIDEO input, or DVD/HD input, or RGB input, and turn on the power switch of the main unit.

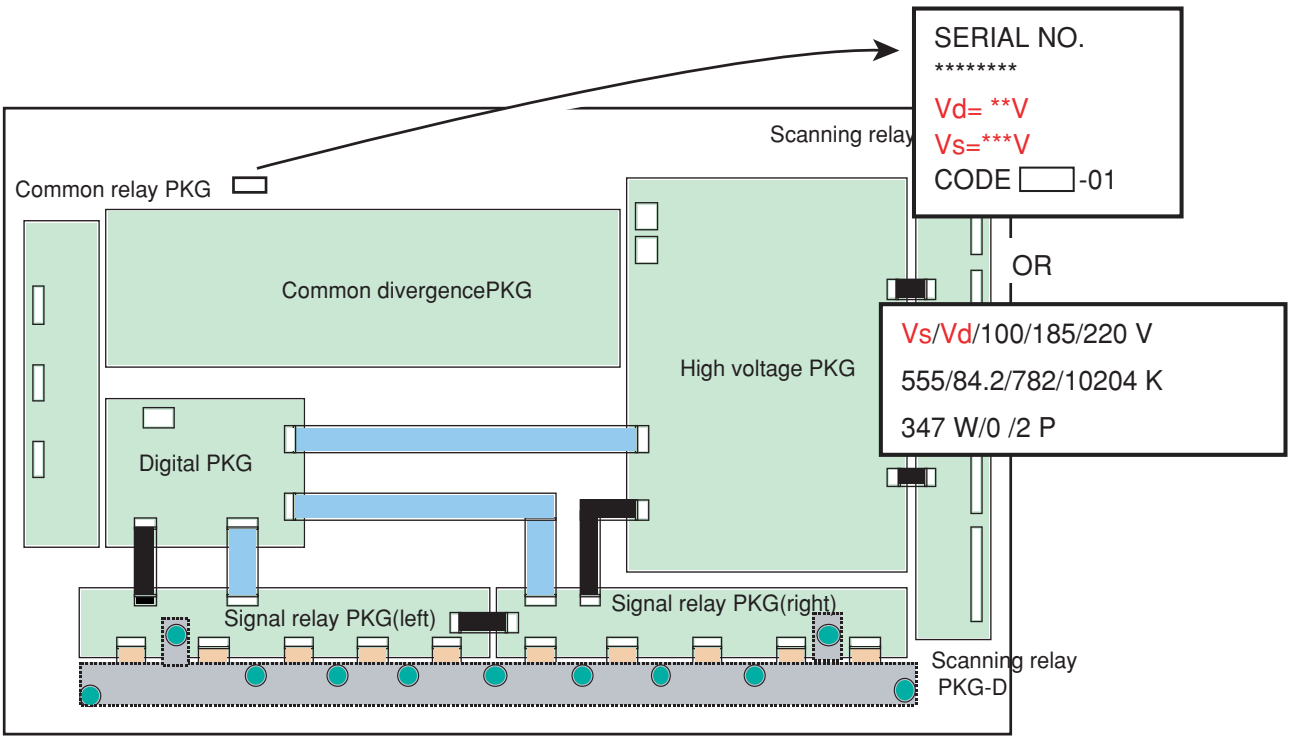
(2) Confirm that the voltages of CH4 and CH1 (D, GND) of the power unit are maintained at the voltage values specified for the PDP (Vd value of the voltage regulation indicator label on below the figure) ±1V.

Otherwise, turn the volume control (RV5) until the voltage attains the voltage values specified for the PDP (Vd value of the voltage regulation indicator label on below the figure) ±1V.

2-3. Adjustment of the +5V voltage

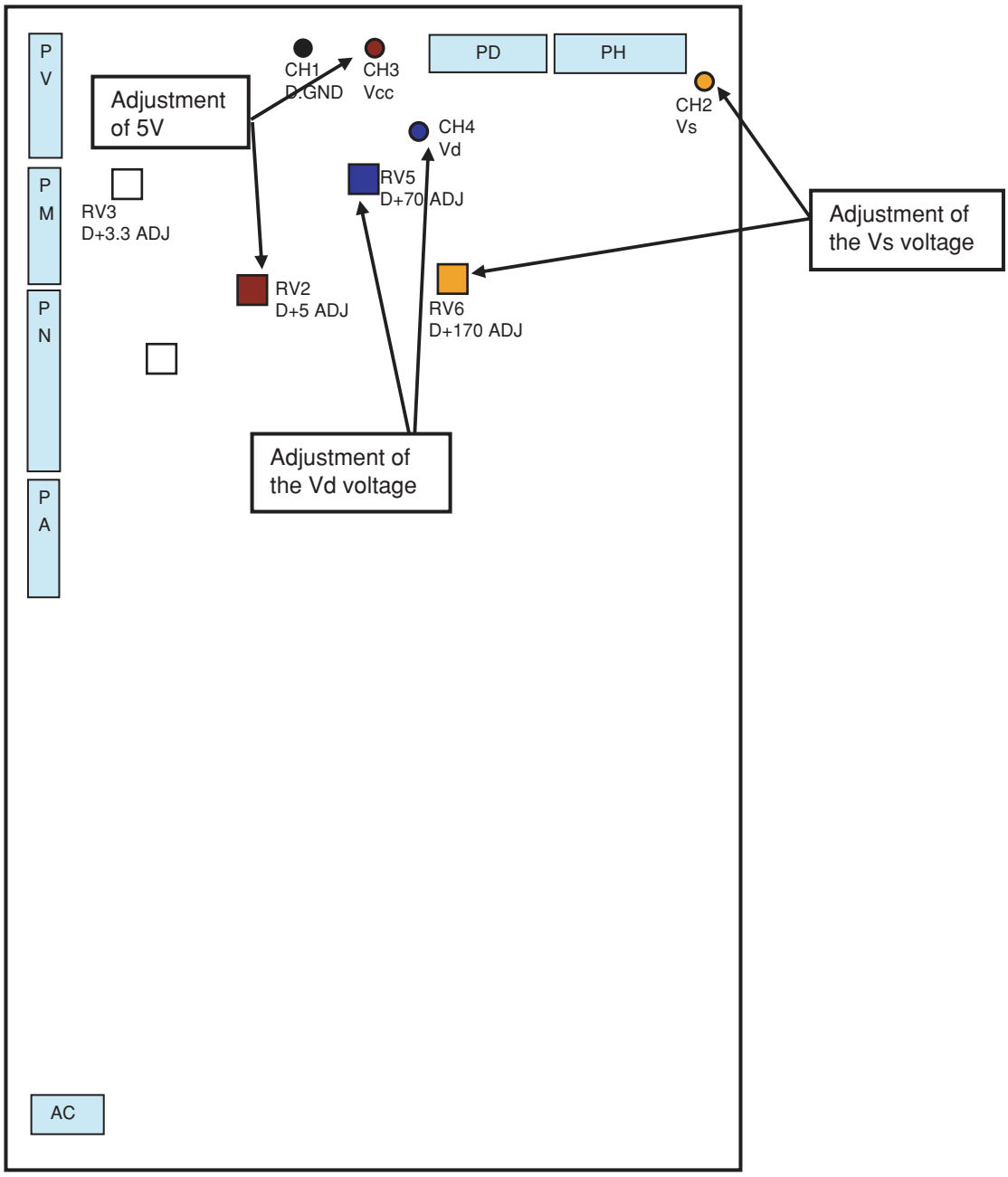
(1) Display a color bar by means of either video signal of VIDEO input, or DVD/HD input, or RGB input.

(2) Confirm that the voltages of CH3 and CH1 (D, GND) of the power unit are maintained at "5.15 ± 0.1V". Otherwise, turn the volume control (RV2) until the voltage attains "5.15 ± 0.1V".



(Caution) Rear-side view when the back cover is removed The label is concealed between the MAIN PWB and PDP. Check it by peeping through the space from above. The label position can be changed, without notice.

*** Top view of the power unit (Adjustment VR location)**

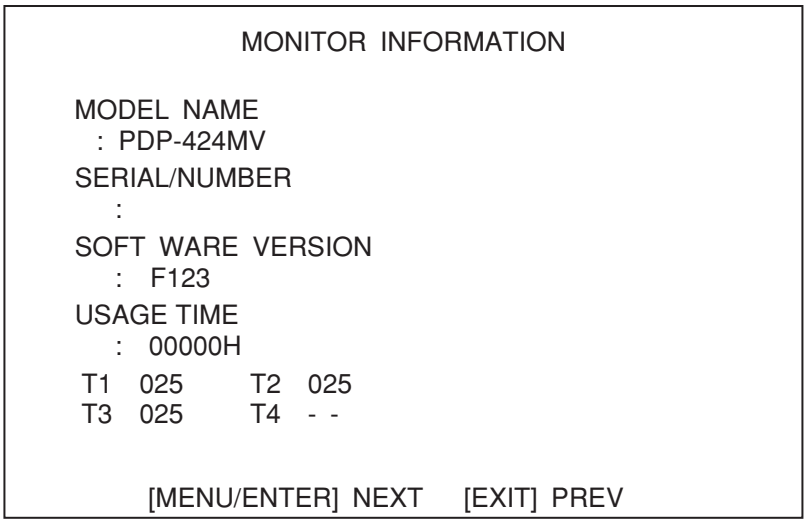


3. Adjustments after the replacement of the MAIN PWB (Using the remote control)

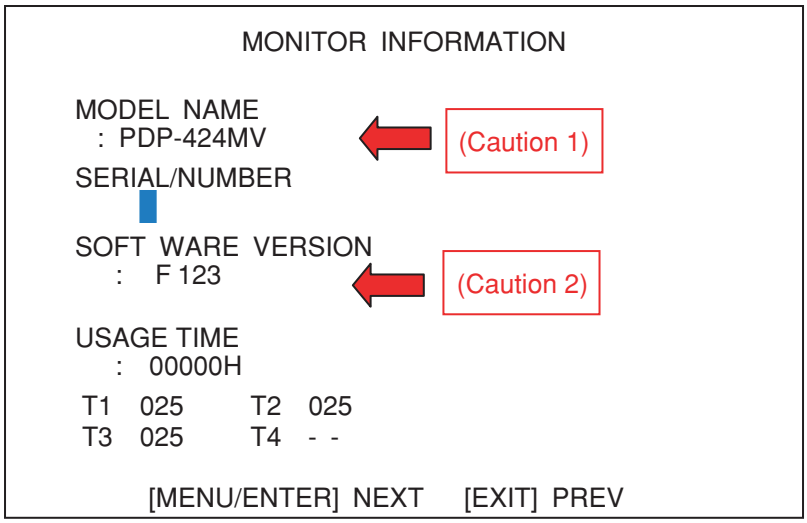
3-1. Product serial No. registration

(1) Press the keys in the order of [POWER ON] → [POWER ON] → [EXIT] → [DISPLAY] in order to enter the factory adjustment menu.

(2) Press the [MENU/ENTER] key to select the [MONITOR INFORMATION] No. menu. (Example : PDP-424MV)



(3) Press the [WIDE] key 4 times to display a cursor in the lower column of [SERIAL/NUMBER].



(Caution 1) No modification is possible here because this modification is already finished by 3-2. Factory shipment setting (initial setting).

(Caution 2) No modification is possible here because registration is already finished at the time of shipment in terms of maintenance parts.

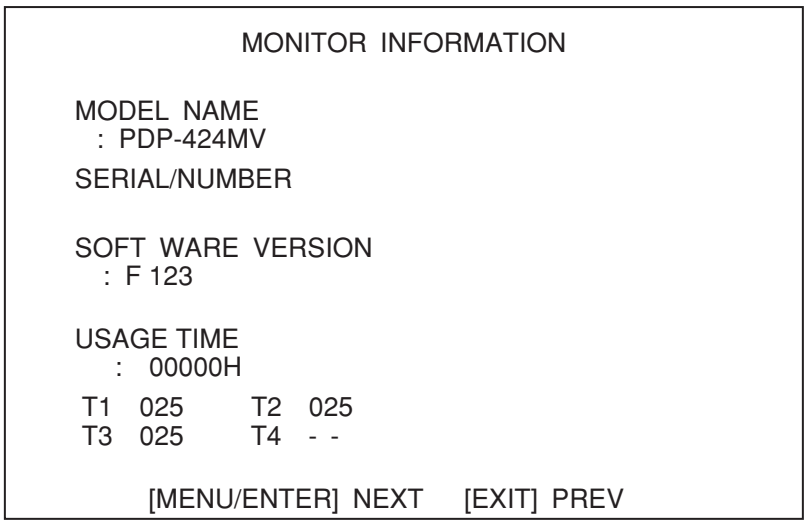
(4) Moving the POSITION/CONTROL keys of [▲] and [▼], select the numerals and characters of the serial number that is listed in the serial label located on the rear surface of the product. Register the serial number. (Blank → 0 – 9→A – Z)

(5) Moving the POSITION/CONTROL keys of [◀] and [▶], select the next digit by means of a cursor.

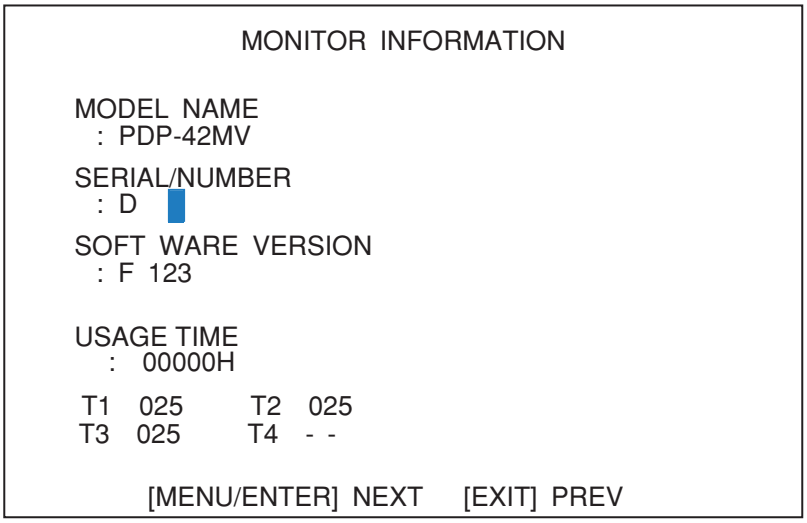
(6) Repeat the processes of (4) and (5) above and register the serial number completely.

(Example) When entering a serial number of [DISS00001XX]

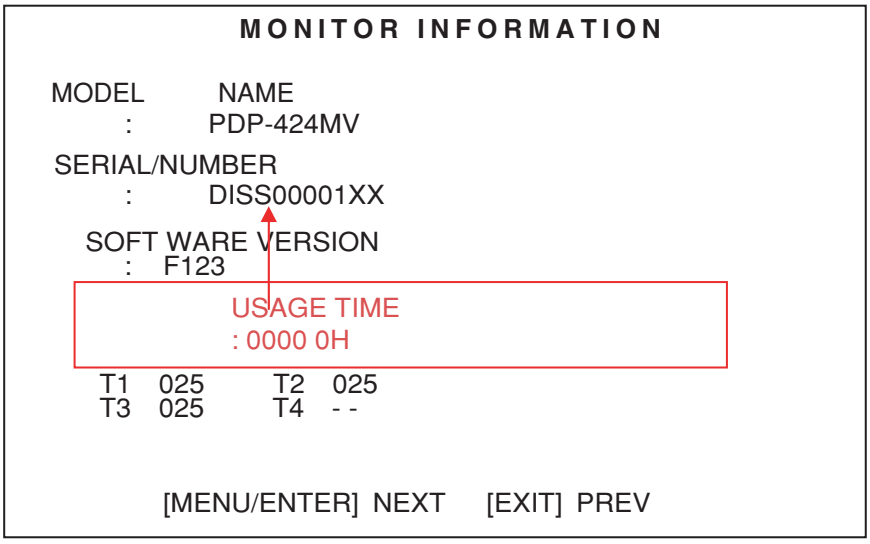
Move the POSITION/CONTROL keys of [▲] and [▼] to select [D].



Move the POSITION/CONTROL keys of [◀] and [▶] to select the next digit.



③ Repeat the procedures of ① and ② above, and enter all inputs of [DISS00001XX] from the left side.



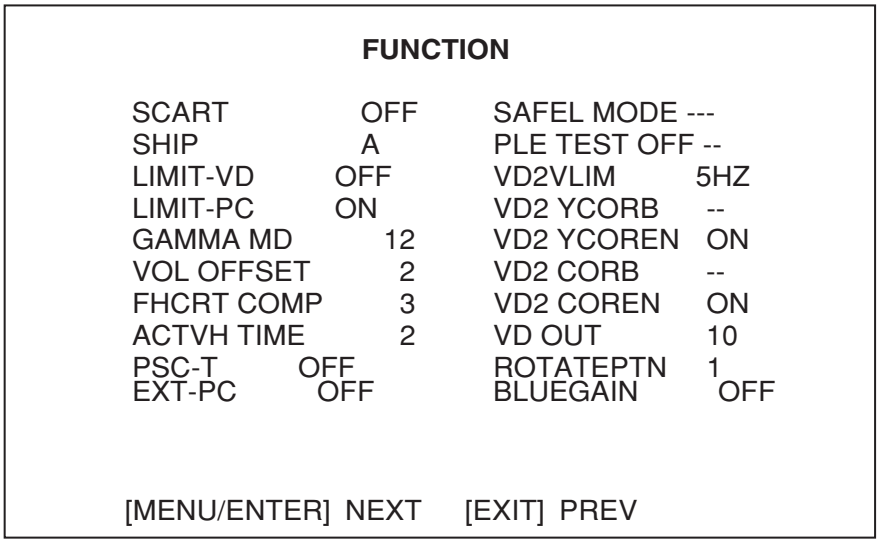
(7) Following the above, setting must be carried out without fail according to "3-2. Factory shipment setting (Initial setting)"

3-2.Factory shipment setting (Initial setting)

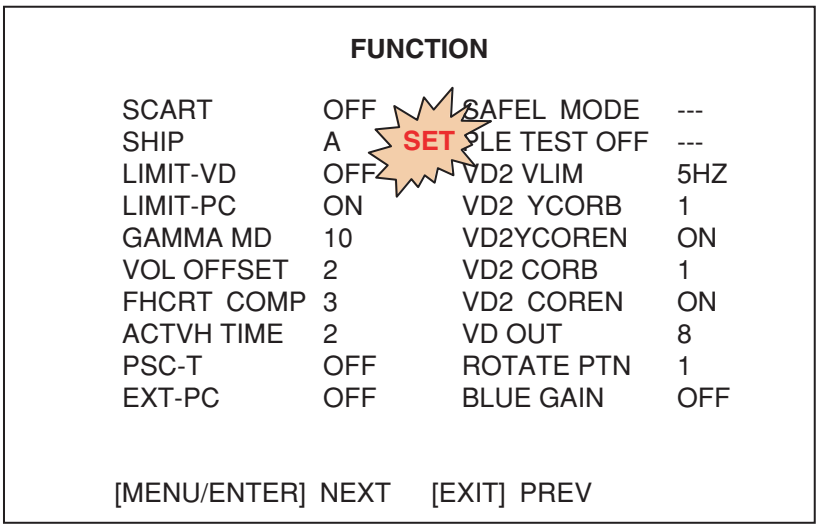
(1) Press the [MENU/ENTER] ke to select the [FUNCTION] menu.

(2) Move the POSITION/CONTROL keys of [▲] and [▼] to the item of [SHIP]. Then, move the POSITION/CONTROL keysof [◀] and [▶] to select [DESTINATION ALPHABETS] shown below. (The asterisks * shown below denote the numerals or the characters.)

J : PDP-424MV-FI	JW	:	For use in Japan
A : PDP-424MV	AW	:	For use in Japan and North America
G : PDP-42MVE1	GW	:	For European countries
W : Nothing	WW	:	Specifications for zones other than the above



(3) Press the keys in the order of [MUTE]→POSITION/CONTROL [▲] → POSITION/CONTROL [▼] →[OFF TIMER] to make "Factory shipment setting". When "Factory shipment setting" is executed, the red characters of [SET] is shown for about 5 seconds on the right side of the [DESTINATION ALPHABETS]. The setting is finished when these red characters of [SET] go out. In regard to the factory shipment setting values, refer to the descriptions given below.



(4) Press the keys of the remote control in the order of [POWER ON] → [POWER ON] → [EXIT] → [DISPLAY] in order to withdraw from the Factory shipment setting.

[Factory shipment setting values]

1. Initial setting values for the user menu

MENU	A,AW,G,GW,W,WW	J,JW
POWER ON/OFF	ON	ON
VOLUME	10step	10step
INPUT MODE	VIDEO1	VIDEO1
WIDE MODE	STADIUM	STADIUM
AUTO PICTURE	OFF(RGB1–3)	OFF(RGB1–3)
HD SELECT	1080B*	1080B
LANGUAGE	ENGLISH	JAPANEASE
COLOR SYSTEM	AUTO	AUTO
All items intended to recover the initial valuesthrough the selection of [All Reset] in the user menu		Initial values

* 1080I for *PX-***R**

2. Field menu initial setup values (applicable in common to all models)

MENU		A	G	W	J	AW,GW, WW,JW
SERVICE	SHIP	A	G	W	J	AW,GW, WW,JW
	PSC-LIMIT	OFF	OFF	OFF	OFF	OFF
	LIMIT-PC	ON	ON	ON	ON	ON
	U-SCAN	OFF	OFF	OFF	OFF	OFF
	V-FREQ OT	AUTO	60Hz	60Hz	AUTO	AUTO
	V-FREQ VD	AUTO	60Hz	60Hz	AUTO	AUTO
	SYNCLEVEL1	TTL	TTL	TTL	TTL	TTL
	SYNCLEVEL2	TTL	TTL	TTL	TTL	TTL
	SUB-ORB *1	ON	ON	ON	ON	ON
	PIC FREEZE *1	ON	ON	ON	ON	ON
MONITOR INFORMATION	MODEL NAME	PDP-424MV	PDP-42MVEI		PDP-424MV-FI PDP-424MV	

3. Initial setting values for the Factory shipment setting menu The table shown below specifies only the items that can be changed in the factory adjusting mode. Therefore, any setting values of the items not specified below cannot be modified.

MENU		A,AW	G,GW	W,WW	J,JW
FUNCTION	SHIP	A or AW	G or GW	W or WW	J or JW
	LIMIT-PC	ON	ON	ON	ON
MONITOR INFORMATION	SERIAL/ NUMBER	-	-	-	-

[Materia ls for reference]

1. Signal generator

(1) Digital RGB

, Component signal generator

- Equivalent to the VIDEO GENERATOR LT1615 (made by LEADER)
- Equivalent to the PANEL LINK ADAPTER LT9217 (made by LEADER)
- Equivalent to the VIDEO ENCODE R LT1606 (made by LEADER)

(2) NTSC signal generator

- Equivalent to the NTSC PATTERN GENERATER LCG-403YC (made by LEADER)

(3) PAL signal generator

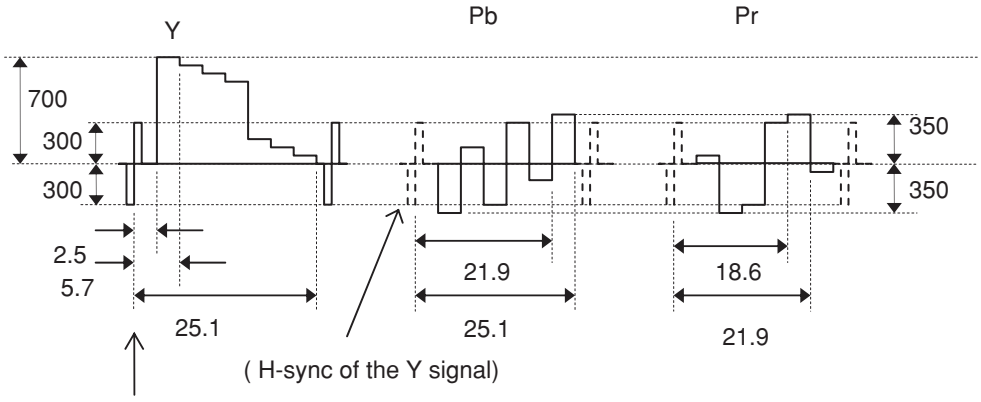
- Equivalent to the COLOR BAR PATTERN GENERATOR PM5518 (made by PHILIPS)

2. VIDEO input

Input: Composite video input or S-terminal input

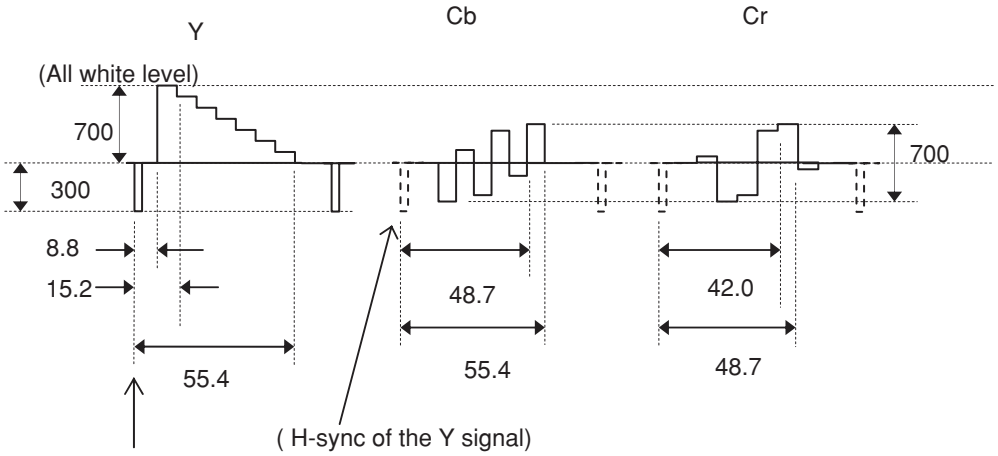
3. DVD/HD/DTV inputs

3-1. HD: Y/Pb/Pr component inputs, ternary sync signals



The time indication is based on the rise time of the ternary sync signals.

3-2. DVD: Y/Cb/Cr component inputs



The time indication is based on the lowering of the Horizontal sync signal.

4. RGB inputs

1) Horizontal sync period

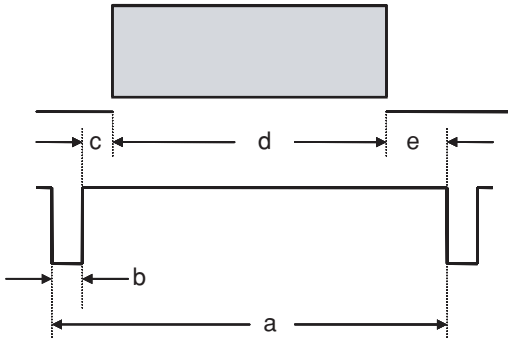
Video signal

0.7Vp-p

Sync signal

TTL level

Positive/negative polarity



2) Vertical sync period

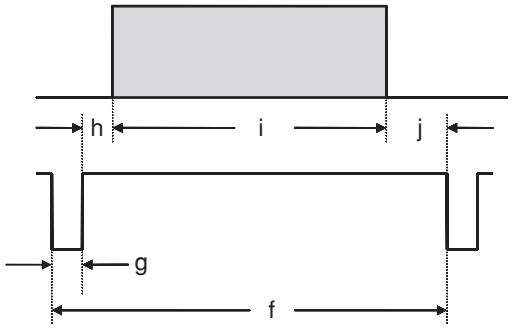
Video gnasil

0.7Vp-p

Sync signal

TTL level

Positive/negative polarity



For the respective inspection signals, the above ìaî to ìjî shall be listed on the next page and thereafter.

5. RGB/PC signal timing table

(Caution 1) For HDCP non-application products, the signals of the PC mode 1 ~ 89 can be received. For HDCP application products, the signals of the PC mode 1 ~ 98 can be received.

(Caution 2) The received PC mode number specified below is displayed in the memory column of the user menu "Information."

PC mode	1	2	3	4	5
Signal name	VU-6010 NTSC	VU-6010 PAL/SECAM	NOT USED	PC98 400@70Hz	PC98 480@60Hz
Definition	640*240	768*288		640*400	640*480
Dot clock frequency (MHz)	12.214	14.752		25.175	25.175
H frequency (kHz)	15.734	15.557		31.469	31.469
V frequency (Hz)	59.94	50.39		70.086	59.94
H total (uS) (dots) [a]	63.534 776	64.262 948		31.778 800	31.778 800
H display period (uS (dots) [d]	52.4 640	52.06 768		25.422 640	25.422 640
H front porch (uS) (dots) [c]	1.146 14	1.288 19		0.675 17	0.596 15
H sync pulse width (uS) (dots) [b]	8.76 107	8.677 128		2.542 64	3.813 96
H back porch (uS) (dots) [e]	1.228 15	2.237 33		3.138 79	1.946 49
V total (mS) (line) [f]	16.652 262	20.055 312		14.268 449	16.683 525
V display period (mS) (line) [i]	15.3 240	18.513 288		12.711 400	15.253 480
V front porch (mS) (line) [h]	0.191 3	0.321 5		0.413 13	0.191 6
V sync pulse width (mS)(line) [g]	1.144 18	1.093 17		0.064 2	0.064 2
V back porch (mS) (line) [j]	0.064 1	0.064 1		1.08 34	1.176 37
H sync polarity V sync polarity	Neg Neg	Neg Neg		Neg Neg	Neg Neg
Scan type	Interlaced	Interlaced		Non Interlaced	Non Interlaced
Remarks					

PC mode	6	7	8	9	10
Signal name	MAC@13"	VESA 480@72Hz	VESA 480@75Hz	VESA 480@85Hz	
Definition	640*480	640*480	640*480	640*480	
Dot clock frequency (MHz)	30.24	31.5	31.5	36.0	
H frequency (kHz)	35	37.861	37.5	43.269	
V frequency (Hz)	66.667	72.809	75	85.008	
H total (uS) (dots)	28.571 864	26.413 832	26.667 840	23.111 832	
H display period (uS (dots)	21.164 640	20.317 640	20.317 640	17.778 640	
H front porch (uS) (dots)	2.116 64	0.762 24	0.508 16	1.556 56	
H sync pulse width (uS) (dots)	2.116 64	1.27 40	2.032 64	1.556 56	
H back porch (uS) (dots)	3.175 96	4.064 128	3.81 120	2.222 80	NOT USED
V total (mS) (line)	15 525	13.735 520	13.333 500	11.764 509	
V display period (mS) (line)	13.714 480	12.678 480	12.8 480	11.093 480	
V front porch (mS) (line)	0.086 3	0.237 9	0.027 1	0.023 1	
V sync pulse width (mS)(line)	0.086 3	0.079 3	0.08 3	0.069 3	
V back porch (mS) (line)	1.114 39	0.739 28	0.427 16	0.578 25	
H sync polarity V sync polarity	Sync on G Sync on G	N e g N e g	N e g N e g	N e g N e g	
Scan type	Non Interlaced	Non Interlaced	Non Interlaced	Non Interlaced	
Remarks					

PC mode	11	12	13	14	15
Signal name	VESA 600@56Hz	VESA 600@60Hz	VESA 600@72Hz	VESA 600@75Hz	VESA 600@85Hz
Definition	800*600	800*600	800*600	800*600	800*600
Dot clock frequency (MHz)	36	40	50	49.5	56.25
H frequency (kHz)	35.156	37.879	48.077	46.875	53.674
V frequency (Hz)	56.25	60.317	72.188	75	85.061
H total (uS) (dots)	28.444 1024	26.4 1056	20.8 1040	21.333 1056	18.631 1048
H display period (uS (dots)	22.222 800	20 800	16 800	16.162 800	14.222 800
H front porch (uS) (dots)	0.667 24	1 40	1.12 56	0.323 16	0.569 32
H sync pulse width (uS) (dots)	2 72	3.2 128	2.4 120	1.616 80	1.138 64
H back porch (uS) (dots)	3.556 128	2.2 88	1.28 64	3.232 160	2.702 152
V total (mS) (line)	17.778 625	16.579 628	13.853 666	13.333 625	11.756 631
V display period (mS) (line)	17.067 600	15.84 600	12.48 600	12.8 600	11.179 600
V front porch (mS) (line)	0.028 1	0.026 1	0.77 37	0.021 1	0.019 1
V sync pulse width (mS)(line)	0.057 2	0.106 4	0.125 6	0.064 3	0.056 3
V back porch (mS) (line)	0.626 22	0.607 23	0.478 23	0.448 21	0.503 27
H sync polarity V sync polarity	Pos. Pos.	Pos. Pos.	Pos. Pos.	Pos. Pos.	Pos. Pos.
Scan type	Non Interlaced	Non Interlaced	Non Interlaced	Non Interlaced	Non Interlaced
Remarks					

PC mode	16	17	18	19	20
Signal name	MAC@16"	I/O data wide	VESA	VESA wide (NEC1)	
Definition	832*624	852*480		848*480	
Dot clock frequency (MHz)	57.2832	34.006		33.75	
H frequency (kHz)	49.725	31.722		31.02	
V frequency (Hz)	74.55	59.966		60	
H total (uS) (dots)	20.111 1152	31.524 1072		32.237 1088	
H display period (uS (dots)	14.524 832	25.055 852		25.126 848	
H front porch (uS) (dots)	0.559 32	0.659 22		0.474 16	
H sync pulse width (uS) (dots)	1.117 64	3.764 128		3.319 112	
H back porch (uS) (dots)	3.91 224	2.047 70	NOT USED	3.319 112	NOT USED
V total (mS) (line)	13.414 667	16.676 529		16.667 517	
V display period (mS) (line)	12.549 624	15.132 480		15.474 480	
V front porch (mS) (line)	0.02 1	0.378 12		0.193 6	
V sync pulse width (mS)(line)	0.06 3	0.095 3		0.258 8	
V back porch (mS) (line)	0.784 39	1.072 34		0.741 23	
H sync polarity V sync polarity	Sync on G Sync on G	Neg Neg		Pos. Pos.	
Scan type	Non Interlaced	Non Interlaced		Non Interlaced	
Remarks					

PC mode	21	22	23	24	25
Signal name	NOT USED	VESA wide (NEC4)	NOT USED	VESA 768@60Hz	VESA 768@70Hz
Definition		1360*768		1024*768	1024*768
Dot clock frequency (MHz)		85.5		65	75
H frequency (kHz)		47.712		48.363	56.476
V frequency (Hz)		60.015		60.004	70.069
H total (uS) (dots)		20.959 1792		20.677 1344	17.707 1328
H display period (uS (dots)		15.906 1360		15.754 1024	13.653 1024
H front porch (uS) (dots)		0.749 64		0.369 24	0.32 24
H sync pulse width (uS) (dots)		1.31 112		2.092 136	1.813 136
H back porch (uS) (dots)		2.994 256		2.462 160	1.92 144
V total (mS) (line)		16.662 795		16.666 806	14.272 806
V display period (mS) (line)		16.097 768		15.88 768	13.599 768
V front porch (mS) (line)		0.063 3		0.062 3	0.053 3
V sync pulse width (mS)(line)		0.126 6		0.124 6	0.106 6
V back porch (mS) (line)		0.377 18		0.6 29	0.513 29
H sync polarity V sync polarity		Pos. Pos.		Neg Neg	Neg Neg
Scan type		Non Interlaced		Non Interlaced	Non Interlaced
Remarks					

PC mode	26	27	28	29	30
Signal name	VESA 768@75Hz	VESA 768@85Hz	MAC@19"	VESA 1024@60Hz	VESA 1024@75Hz
Definition	1024*768	1024*768	1024*768	1280*1024	1280*1024
Dot clock frequency (MHz)	78.75	94.5	80	108	135
H frequency (kHz)	60.023	68.677	60.24	63.981	79.976
V frequency (Hz)	75.029	84.997	74.93	60.02	75.025
H total (uS) (dots)	16.66 1312	14.561 1376	16.600 1328	15.63 1688	12.501 1688
H display period (uS (dots)	13 1024	10.836 1024	12.8 1024	11.852 1280	9.481 1280
H front porch (uS) (dots)	0.203 16	0.508 48	0.4 32	0.444 48	0.119 2
H sync pulse width (uS) (dots)	1.219 96	1.016 96	1.2 96	1.037 112	1.067 144
H back porch (uS) (dots)	2.235 176	2.201 208	2.2 176	2.296 248	1.837 248
V total (mS) (line)	13.328 800	11.765 808	13.347 804	16.661 1066	13.329 1066
V display period (mS) (line)	12.795 768	11.183 768	12.749 768	16.005 1024	12.804 1024
V front porch (mS) (line)	0.017 1	0.015 1	0.050 3	0.016 1	0.013 1
V sync pulse width (mS)(line)	0.05 3	0.044 3	0.050 3	0.047 3	0.038 3
V back porch (mS) (line)	0.466 28	0.524 36	0.498 30	0.594 38	0.475 38
H sync polarity V sync polarity	Pos. Pos.	Pos. Pos.	— —	Pos. Pos.	Pos. Pos.
Scan type	Non Interlaced	Non Interlaced	Non Interlaced	Non Interlaced	Non Interlaced
Remarks					

PC mode	31	32	33	34	35
Signal name	IDC-3000G PAL 625P	IDC-3000G NTSC 525P	HDTV-JD	TV(480P)	DTV(720P)
Definition	768*576	640*480	1920*1035	644*483	1280*720
Dot clock frequency (MHz)	29.687	24.39	74.25	24.37	74.25
H frequency (kHz)	31.389	31.47	33.75	31.469	45.000
V frequency (Hz)	50	59.9	60	59.94	60
H total (uS) (dots)	31.933 948	31.775 775	29.63 2200	31.777 774	22.222 1650
H display period (uS (dots)	25.87 768	26.24 640	25.86 1920	26.427 644	17.239 1280
H front porch (uS) (dots)	0.269 8	0.41 10	0.59 44	0.75 18	0.943 70
H sync pulse width (uS) (dots)	2.526 75	2.46 60	0.59 44	2.35 57	1.077 80
H back porch (uS) (dots)	3.267 97	2.665 65	2.59 192	2.25 55	2.963 220
V total (mS) (line)	19.911 625	16.522 525	16.666 562.5	16.683 525	16.667 750
V display period (mS) (line)	18.35 576	15.106 480	15.348 517/518	15.348 483	16 720
V front porch (mS) (line)	0.223 7	0.252 8	0.163/0.148 5.5/5	0.191 6	0.111 5
V sync pulse width (mS)(line)	0.223 7	0.22 7	0.148 5	0.191 6	0.111 5
V back porch (mS) (line)	1.115 35	0.944 30	1.037/1.022 35/34.5	0.953 30	0.444 20
H sync polarity V sync polarity	Neg Neg	Neg Neg	Neg Neg	Neg Neg	Neg Neg
Scan type	Non Interlaced	Non Interlaced	Non Interlaced	Non Interlaced	Non Interlaced
Remarks					

PC mode	36	37	38	39	40
Signal name	HDTV-W			MAC@21"	VESA 1024@85Hz
Definition	1920*1080			1152*870	1280*1024
Dot clock frequency (MHz)	74.25			100	157.5
H frequency (kHz)	33.75			68.681	91.146
V frequency (Hz)	60			75.062	85.024
H total (uS)	29.630			14.560	10.971
(dots)	2200			1456	1728
H display period (uS)	25.859			11.520	8.127
(dots)	1920			1152	1280
H front porch (uS)	0.593			0.320	0.406
(dots)	44			32	64
H sync pulse width (uS)	1.185			1.280	1.016
(dots)	88			128	160
H back porch (uS)	1.993	NOT USED	NOT USED	1.440	1.422
(dots)	148			144	224
V total (mS)	16.666			13.322	11.761
(line)	562.5			915	1072
V display period (mS)	16.000			12.667	11.235
(line)	540			870	1024
V front porch (mS)	0.074/0.059			0.044	0.011
(line)	2.5/2			3	1
V sync pulse width (mS)	0.148			0.044	0.033
(line)	5			3	3
V back porch (mS)	0.444/0.459			0.568	0.483
(line)	15/15.5			39	44
H sync polarity	Neg			Sync on G	Pos.
V sync polarity	Neg			Sync on G	Pos.
Scan type	Interlaced			Non Interlaced	Non Interlaced
Remarks					

PC mode	41	42	43	44	45
Signal name	I/O data 480@100Hz	I/O data 480@120Hz	I/O data 600@100Hz	I/O data 600@120Hz	I/O data 768@100Hz
Definition	640*480	640*480	800*600	800*600	1024*768
Dot clock frequency (MHz)	42.506	51.008	66.022	79.942	111.987
H frequency (kHz)	51.089	61.307	62.998	75.703	80.451
V frequency (Hz)	100.370	120.440	99.838	119.97	100.56
H total (uS)	19.573	16.311	15.873	13.209	12.43
(dots)	832	832	1048	1056	1392
H display period (uS)	15.057	12.574	12.117	10.007	9.144
(dots)	640	640	800	800	1024
H front porch (uS)	1.506	1.255	0.606	0.300	0.214
(dots)	64	64	40	24	24
H sync pulse width (uS)	1.317	1.098	0.969	1.001	0.786
(dots)	56	56	64	80	88
H back porch (uS)	1.694	1.412	2.181	1.901	2.286
(dots)	72	72	144	152	256
V total (mS)	9.963	8.302	10.016	8.335	9.944
(line)	509	509	631	631	800
V display period (mS)	9.395	7.829	9.524	7.926	9.546
(line)	480	480	600	600	768
V front porch (mS)	0.020	0.016	0.016	0.013	0.012
(line)	1	1	1	1	1
V sync pulse width (mS)	0.059	0.049	0.048	0.04	0.037
(line)	3	3	3	3	3
V back porch (mS)	0.489	0.408	0.429	0.357	0.348
(line)	25	25	27	27	28
H sync polarity	Neg	Neg	Pos.	Pos.	Neg
V sync polarity	Neg	Neg	Pos.	Pos.	Neg
Scan type	Non Interlaced	Non Interlaced	Non Interlaced	Non Interlaced	Non Interlaced
Remarks					

PC mode	46	47	48	49	50
Signal name	I/O data 768@120Hz	I/O data 1024@100Hz	EWS 4800@71Hz	RCA-STB 1080A	DTV(570P)
Definition	1024*768	1280*1024	1280*1024	1920*1034	768*576
Dot clock frequency (MHz)	132.953	190.908	125	81	29.538
H frequency (kHz)	95.512	108.47	75.12	33.75	31.25
V frequency (Hz)	119.39	100.06	71.204	60	50
H total (uS)	10.47	9.219	13.312	29.630	31.993
(dots)	1392	1760	1664	2400	945
H display period (uS)	7.702	6.7	10.24	23.7	26
(dots)	1024	1280	1280	1920	768
H front porch (uS)	0.181	0.545	0.256	0.59	0.745
(dots)	24	104	32	48	22
H sync pulse width (uS)	0.662	0.75	1.024	3.56	2.35
(dots)	88	143	128	288	69
H back porch (uS)	1.925	1.22	1.792	1.78	2.9
(dots)	256	233	224	144	86
V total (mS)	8.376	9.994	14.044	16.652	20
(line)	800	1084	1055	562	625
V display period (mS)	8.041	9.44	13.631	15.319	18.432
(line)	768	1024	1024	517	576
V front porch (mS)	0.010	0.01	0.04	0.059	0.16
(line)	1	1	3	2	5
V sync pulse width (mS)	0.031	0.03	0.04	0.089	0.16
(line)	3	3	3	3	5
V back porch (mS)	0.293	0.52	0.333	1.185	1.248
(line)	28	56	25	40	39
H sync polarity	Neg	Pos.	Neg	Pos.	Neg
V sync polarity	Neg	Pos.	Neg	Pos.	Neg
Scan type	Non Interlaced	Non Interlaced	Non Interlaced	Interlaced	Non Interlaced
Remarks					

PC mode	51	52	53	54	55
Signal name	VESA 864@75Hz	I/O data W_XGA@56Hz	I/O wide XGA	VESA 1200@60Hz	VESA 1200@65Hz
Definition	1152*864	1280*768	1376*768	1600*1200	1600*1200
Dot clock frequency (MHz)	108	76.064	87.34	162	175.5
H frequency (kHz)	67.5	45.064	48.307	75	81.25
V frequency (Hz)	75	56.187	59.934	60	65
H total (uS)	14.815	22.192	20.701	13.333	12.308
(dots)	1600	1688	1808	2160	2160
H display period (uS)	10.667	16.828	15.755	9.877	9.117
(dots)	1152	1280	1376	1600	1600
H front porch (uS)	0.593	0.631	0.366	0.395	0.365
(dots)	64	48	32	64	64
H sync pulse width (uS)	1.185	1.472	1.466	1.185	1.094
(dots)	128	112	128	192	192
H back porch (uS)	2.37	3.26	3.114	1.877	1.732
(dots)	256	248	272	304	304
V total (mS)	13.333	17.78	16.685	16.667	15.385
(line)	900	802	806	1250	1250
V display period (mS)	12.8	17.043	15.898	16	14.769
(line)	864	768	768	1200	1200
V front porch (mS)	0.015	0.044	0.062	0.013	0.012
(line)	1	2	3	1	1
V sync pulse width (mS)	0.044	0.067	0.124	0.04	0.037
(line)	3	3	6	3	3
V back porch (mS)	0.474	0.644	0.6	0.613	0.566
(line)	32	29	29	46	46
H sync polarity	Pos.	Pos.	Neg	Pos.	Pos.
V sync polarity	Pos.	Pos.	Pos.	Pos.	Pos.
Scan type	Non Interlaced	Non Interlaced	Non Interlaced	Non Interlaced	Non Interlaced
Remarks					

PC mode	56	57	58	59	60
Signal name	VESA 1200@70Hz	VESA 1200@75Hz	VESA 1200@85Hz	HP 1024@72Hz	SUN 900@66Hz
Definition	1600*1200	1600*1200	1600*1200	1280*1024	1152*900
Dot clock frequency (MHz)	189	202.5	229.5	135	92.941
H frequency (kHz)	87.5	93.75	106.25	78.130	61.796
V frequency (Hz)	70	75	85	72.009	65.95
H total (uS)	11.429	10.667	9.412	12.8	16.182
(dots)	2160	2160	2160	1728	1504
H display period (uS)	8.466	7.901	6.972	9.481	12.395
(dots)	1600	1600	1600	1280	1152
H front porch (uS)	0.339	0.316	0.279	0.474	0.312
(dots)	64	64	64	64	29
H sync pulse width (uS)	1.016	0.948	0.837	1.442	1.377
(dots)	192	192	192	192	128
H back porch (uS)	1.608	1.501	1.325	1.442	2.098
(dots)	304	304	304	192	195
V total (mS)	14.286	13.333	11.765	13.887	15.163
(line)	1250	1250	1250	1085	937
V display period (mS)	13.714	12.8	11.294	13.107	14.564
(line)	1200	1200	1200	1024	900
V front porch (mS)	0.011	0.011	0.009	0.038	0.032
(line)	1	1	1	3	2
V sync pulse width (mS)	0.034	0.032	0.028	0.038	0.065
(line)	3	3	3	3	4
V back porch (mS)	0.526	0.491	0.433	0.704	0.502
(line)	46	46	46	55	31
H sync polarity	Pos.	Pos.	Pos.	SOG.	Csync
V sync polarity	Pos.	Pos.	Pos.	SOG.	Csync
Scan type	Non Interlaced	Non Interlaced	Non Interlaced	Non Interlaced	Non Interlaced
Remarks					

PC mode	61	62	63	64	65
Signal name	SUN 900@76Hz	SGI 768@60Hz	VESA 960@60Hz	VESA 960@60Hz	VESA 1050@60Hz
Definition	1152*900	1024*768	1280*960	1280*960	1400*1050
Dot clock frequency (MHz)	105.561	70	108	148.5	108
H frequency (kHz)	71.710	49.716	60	85.938	63.981
V frequency (Hz)	76.047	60.043	60	85.002	60.020
H total (uS)	13.945	20.114	16.667	11.636	15.630
(dots)	1472	1408	1800	1728	1688
H display period (uS)	10.913	14.629	11.852	8.62	12.963
(dots)	1152	1024	1280	1280	1400
H front porch (uS)	0.152	2.057	0.889	0.431	0.444
(dots)	16	144	96	64	48
H sync pulse width (uS)	0.909	1.371	1.037	1.077	1.037
(dots)	96	96	112	160	112
H back porch (uS)	1.97	2.507	2.889	1.508	1.185
(dots)	208	144	312	224	128
V total (mS)	13.15	16.655	16.667	11.764	16.661
(line)	943	828	1000	1011	1066
V display period (mS)	12.55	15.448	16	11.171	16.411
(line)	900	768	960	960	1050
V front porch (mS)	0.028	0.443	0.017	0.012	0.016
(line)	2	22	1	1	1
V sync pulse width (mS)	0.112	0.06	0.05	0.035	0.047
(line)	8	3	3	3	3
V back porch (mS)	0.460	0.704	0.6	0.547	0.188
(line)	33	35	36	47	12
H sync polarity	Csync	SOG.	Pos.	Pos.	Neg
V sync polarity	Csync	SOG.	Pos.	Pos.	Neg
Scan type	Non Interlaced	Non Interlaced	Non Interlaced	Non Interlaced	Non Interlaced
Remarks					

PC mode	66~74
Signal name	NOT USED
Definition	
Dot clock frequency (MHz)	
H frequency (kHz)	
V frequency (Hz)	
H total (uS) (dots)	
H display period (uS) (dots)	
H front porch (uS) (dots)	
H sync pulse width (uS) (dots)	
H back porch (uS) (dots)	
V total (mS) (line)	
V display period (mS) (line)	
V front porch (mS) (line)	
V sync pulse width (mS) (line)	
V back porch (mS) (line)	
H sync polarity V sync polarity	
Scan type	
Remarks	

PC mode	75	80	81	82	83
Signal name	1080I 50Hz	W_XGA		400H	350H
Definition	1920*1080	1280*768		720*400	720*350
Dot clock frequency (MHz)	74.25	81.0		28.3	28.3
H frequency (kHz)	28.125	47.99		31.5	31.5
V frequency (Hz)	50	59.34		70.1	70.1
H total (uS)	35.556	20.84		31.78	31.78
(dots)	2640	1688		900	900
H display period (uS)	25.859	15.80		25.42	25.42
(dots)	1920	1280		720	720
H front porch (uS)	6.519	0.593		0.636	0.636
(dots)	484	48		18	18
H sync pulse width (uS)	1.185	1.38		3.81	3.81
(dots)	88	112		108	108
H back porch (uS)	1.993	3.06	NOT USED	1.91	1.91
(dots)	148	248		54	54
V total (mS)	10	16.713		14.269	14.269
(line)	562.5	802		449	449
V display period (mS)	9.6	16.005		12.712	11.123
(line)	540	768		400	350
V front porch (mS)	0.074/0.059	0.063		0.424	1.307
(line)	2.5/2	3		12	37
V sync pulse width (mS)	0.148	0.125		0.064	0.064
(line)	5	6		2	2
V back porch (mS)	0.444/0.459	0.521		1.112	1.907
(line)	15/15.5	25		35	60
H sync polarity	Neg.	Pos.		Neg.	Pos.
V sync polarity	Neg.	Neg.		Pos.	Neg.
Scan type	Interlaced	Non Interlaced		Non Interlaced	Non Interlaced
Remarks					

PC mode	84	85	86	87	88
Signal name	720P 24Hz	1080P 24Hz	720P 50Hz	1080I 48Hz	
Definition	1280*720	1920*1080	1280*720	1920*1080	
Dot clock frequency (MHz)	74.176	74.176	74.25	74.1758	
H frequency (kHz)	17.982	26.973	37.5	26.973	
V frequency (Hz)	23.976	23.976	50	37.074	
H total (uS) (dots)	55.611 4125	37.704 2750	26.667 1980	37.074 2750	
H display period (uS) (dots)	17.256 1280	25.884 1920	17.239 1280	25.884 1920	
H front porch (uS) (dots)	34.310 2545	8.008 594	5.387 400	8.008 594	
H sync pulse width (uS) (dots)	1.078 80	1.078 88	1.078 80	1.078 88	
H back porch (uS) (dots)	2.256 220	1.995 148	2.963 220	1.995 148	NOT USED
V total (mS) (line)	41.706 750	41.708 1125	20 750	20.855 1125	
V display period (mS) (line)	40.040 720	40.040 1080	19.2 720	20.020 1080	
V front porch (mS) (line)	0.278 5	0.148 4	0.133 5	0.093 5	
V sync pulse width (mS) (line)	0.278 5	0.185 5	0.133 5	0.185 10	
V back porch (mS) (line)	1.112 20	1.335 36	0.533 20	0.556 30	
H sync polarity V sync polarity	Neg Neg	Neg Neg	Neg Neg	Neg Neg	
Scan type	Non Interlaced	Non Interlaced	Non Interlaced	Interlaced	
Remarks					

PC mode	89	90	91	92	93
Signal name	NOT USED	480i(60Hz)	DTV(480P)	DTV(480P)	DTV(720P)
Definition		720*480Hz	640*480Hz	720*480Hz	1280*720Hz
Dot clock frequency (MHz)		27.000	25.175	27.000	74.250
H frequency (kHz)		15.734	31.469	31.469	45.000
V frequency (Hz)		59.94	59.940	59.94	60.000
H total (uS) (dots)		16.555 1716	31.777 800	31.777 858	22.222 1650
H display period (uS) (dots)		53.333 1440	25.422 640	26.666 720	17.239 1280
H front porch (uS) (dots)		1.407 38	0.635 16	0.592 16	1.481 110
H sync pulse width (uS) (dots)		4.593 124	3.813 96	2.296 62	0.538 40
H back porch (uS) (dots)		4.222 114	1.906 48	2.222 60	2.963 220
V total (mS) (line)		16.635 262	16.683 525	19.444 525	10.101 750
V display period (mS) (line)		15.253 240	15.253 480	15.253 480	16.000 720
V front porch (mS) (line)		0.254 4	0.317 10	0.333 9	0.067 5
V sync pulse width (mS) (line)		0.191 3	0.064 2	0.191 6	0.111 5
V back porch (mS) (line)		0.953 15	1.049 33	0.953 30	0.444 20
H sync polarity V sync polarity		Neg Neg	Neg Neg	Neg Neg	Pos Pos
Scan type		Interlaced	Non Interlaced	Non Interlaced	Non Interlaced
Remarks		HDCP*	HDCP	HDCP	HDCP

*HDCP : High-bandwidth Digital Content Protection

PC mode	94	95	96	97	98
Signal name	HDTV-W	NOT USED			
Definition	1920*1080Hz				
Dot clock frequency (MHz)	74.250				
H frequency (kHz)	33.750				
V frequency (Hz)	60.000				
H total (uS) (dots)	29.629 2200				
H display period (uS) (dots)	25.859 1920				
H front porch (uS) (dots)	1.185 88				
H sync pulse width (uS) (dots)	0.592 44				
H back porch (uS) (dots)	1.993 148				
V total (mS) (line)	7.582 563				
V display period (mS) (line)	16.000 540				
V front porch (mS) (line)	0.040 3				
V sync pulse width (mS) (line)	0.148 5				
V back porch (mS) (line)	0.444 15				
H sync polarity V sync polarity	Pos Pos				
Scan type	Interlaced				
Remarks	HDCP				

*HDCP : High-bandwidth Digital Content Protection

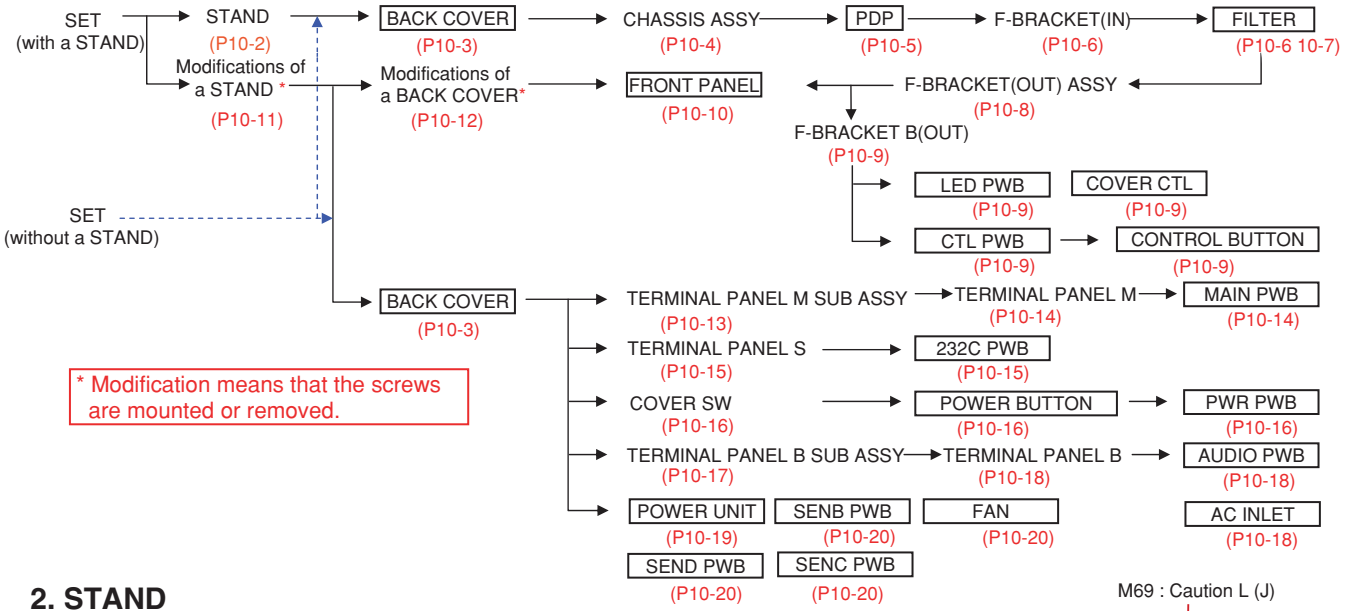
METHOD OF DISASSEMBLY

(Caution) 1. Before disassembly, turn power off the main unit and pull outthe power plug from the wall outlet.
2. Use a screwdriver with a fitting size. Otherwise, the screw threads may be damaged.
3. Reassembly can be carried out in the reverse order for disassembly. Refer to the disassembly procedures and forward reassembly in the reverse order.
4. The order for taking out the parts (or components) is indicated by the foregoing numeral that is attached to the name of each part.
5. The wire connector symbol is indicated by two digits of Marking□□. Read CN-□□when examining the table of parts.
6. Class A or Class B in the text is applicable to the models specified below.

CLASS A: PDP-424MV-F1 CLASS B: PDP-424MV, PDP-42MVE

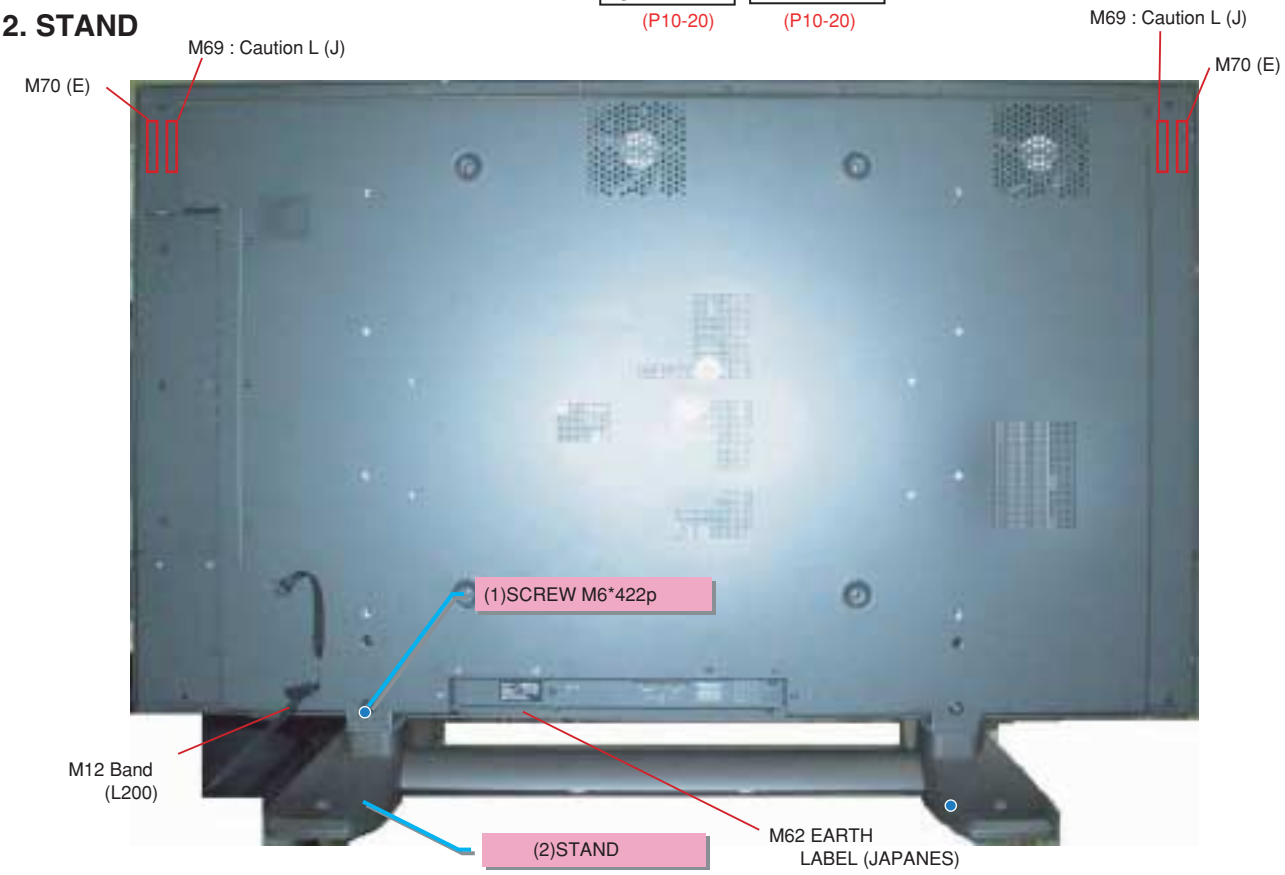
1. Outlined method of disassembly

The outlined procedures for the disassembly of the major parts [] are shown below (disassembled in the direction of →).
In regard to the details of disassembly, cautions, etc.,refer to the method of replacement for each part [page indicated in ()].

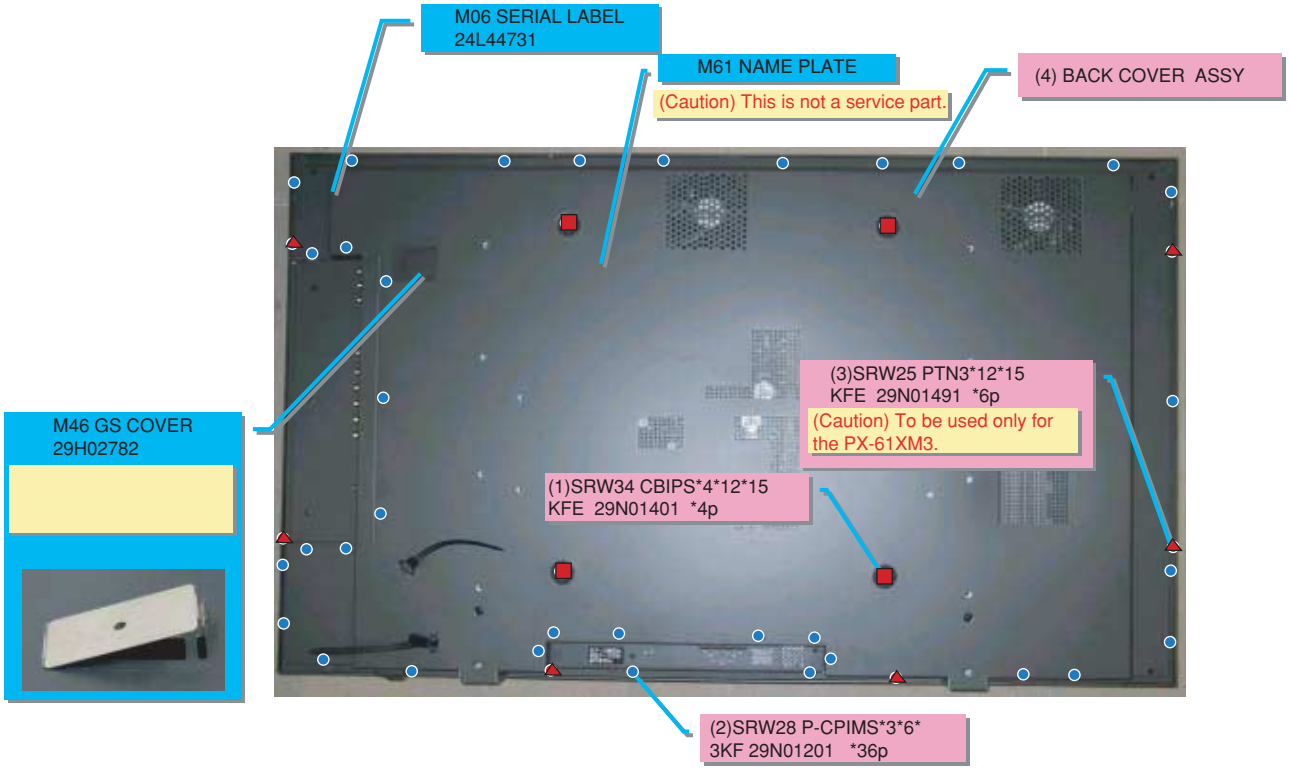


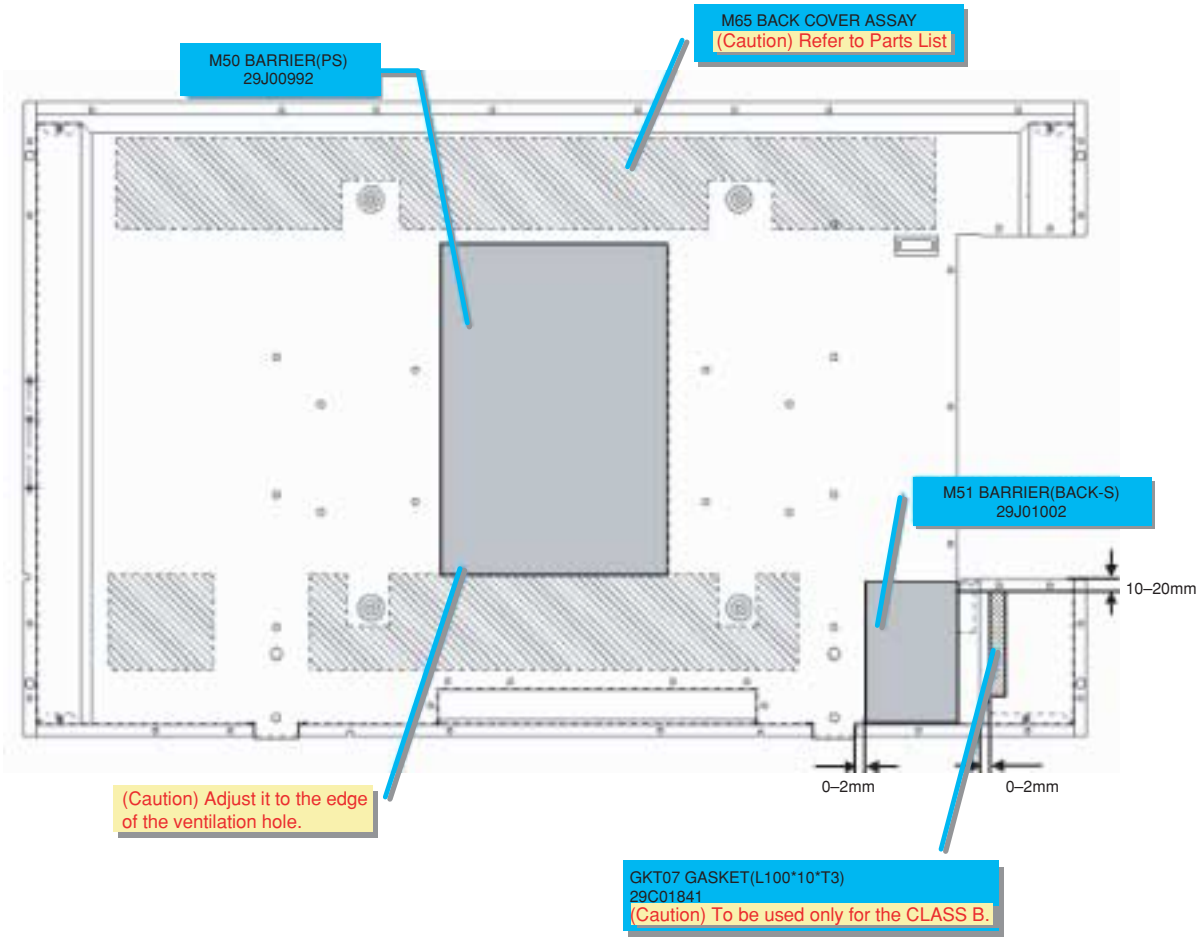
* Modification means that the screws are mounted or removed.

2. STAND

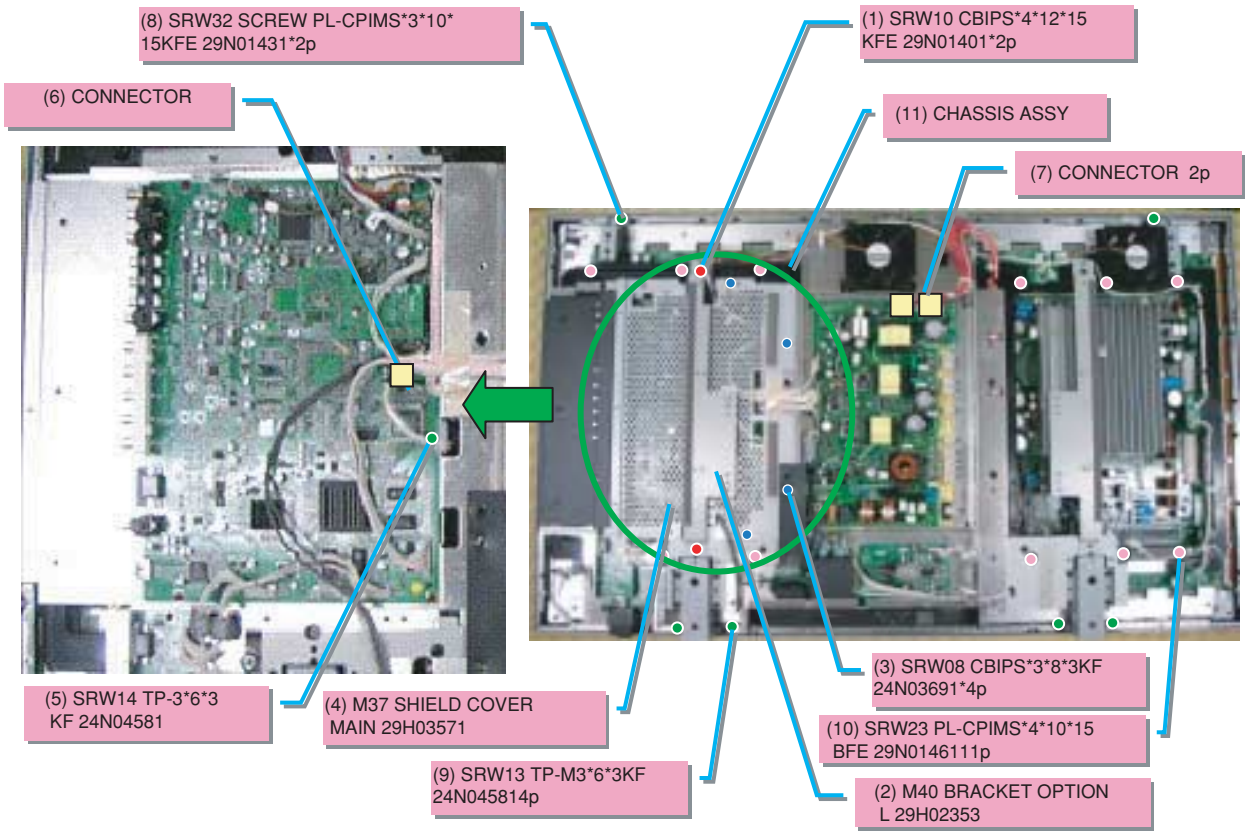


3. BACK COVER

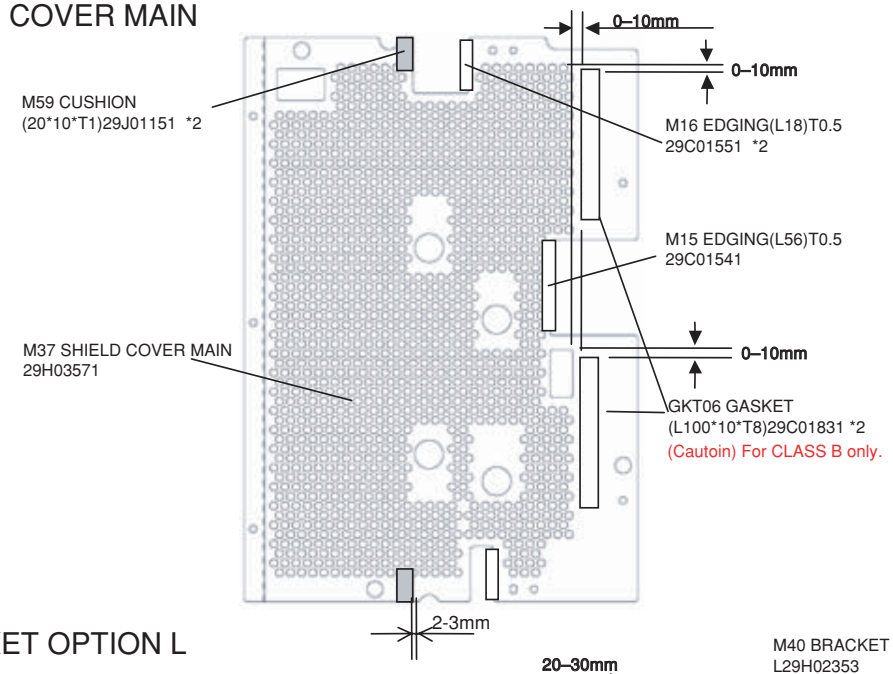

M06 SERIAL LABEL
24L44731
M61 NAME PLATE
(Caution) This is not a service part.
(4) BACK COVER ASSY
M46 GS COVER
29H02782
(3)SRW25 PTN3*12*15
KFE 29N01491 *6p
(Caution) To be used only for the PX-61XM3.
(1)SRW34 CBIPS*4*12*15
KFE 29N01401 *4p
(2)SRW28 P-CPIMS*3*6*
3KF 29N01201 *36p


M65 BACK COVER ASSAY
(Caution) Refer to Parts List
M50 BARRIER(PS)
29J00992
M51 BARRIER(BACK-S)
29J01002
10–20mm
0–2mm
0–2mm
(Caution) Adjust it to the edge of the ventilation hole.
GKT07 GASKET(L100*10*T3)
29C01841
(Caution) To be used only for the CLASS B.

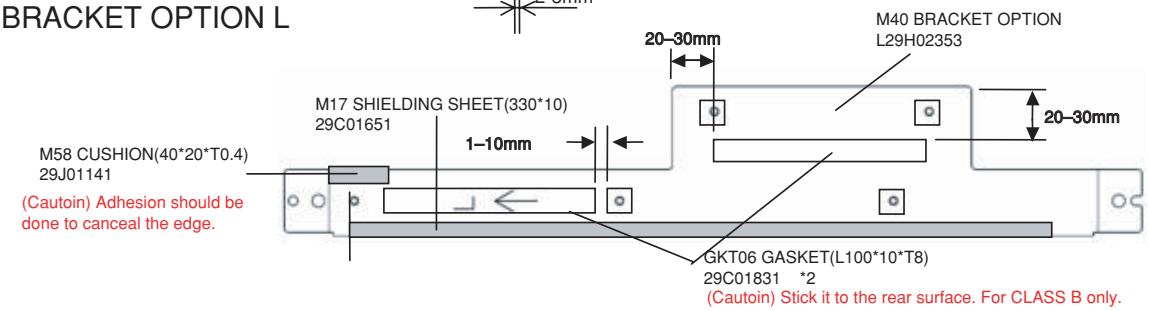
4. CHASSIS ASSY



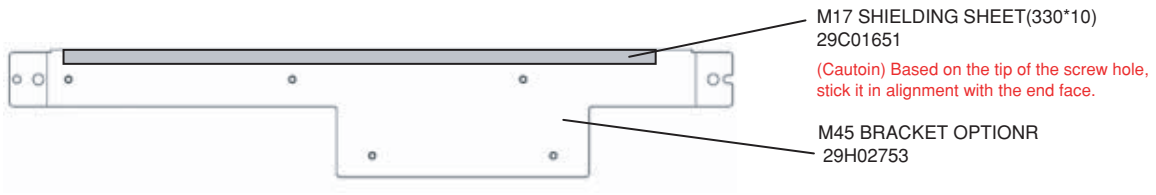
(1)SHIELD COVER MAIN



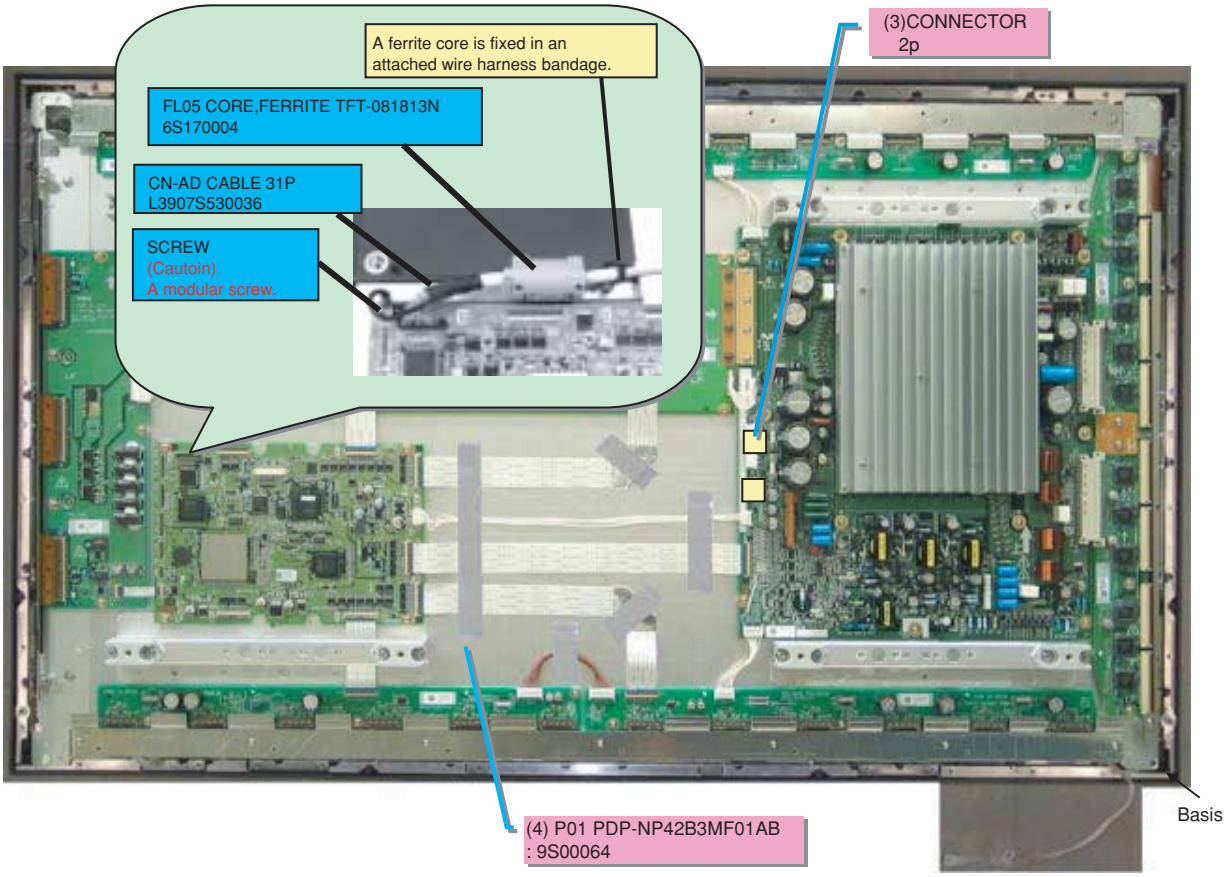
(2)BRACKET OPTION L

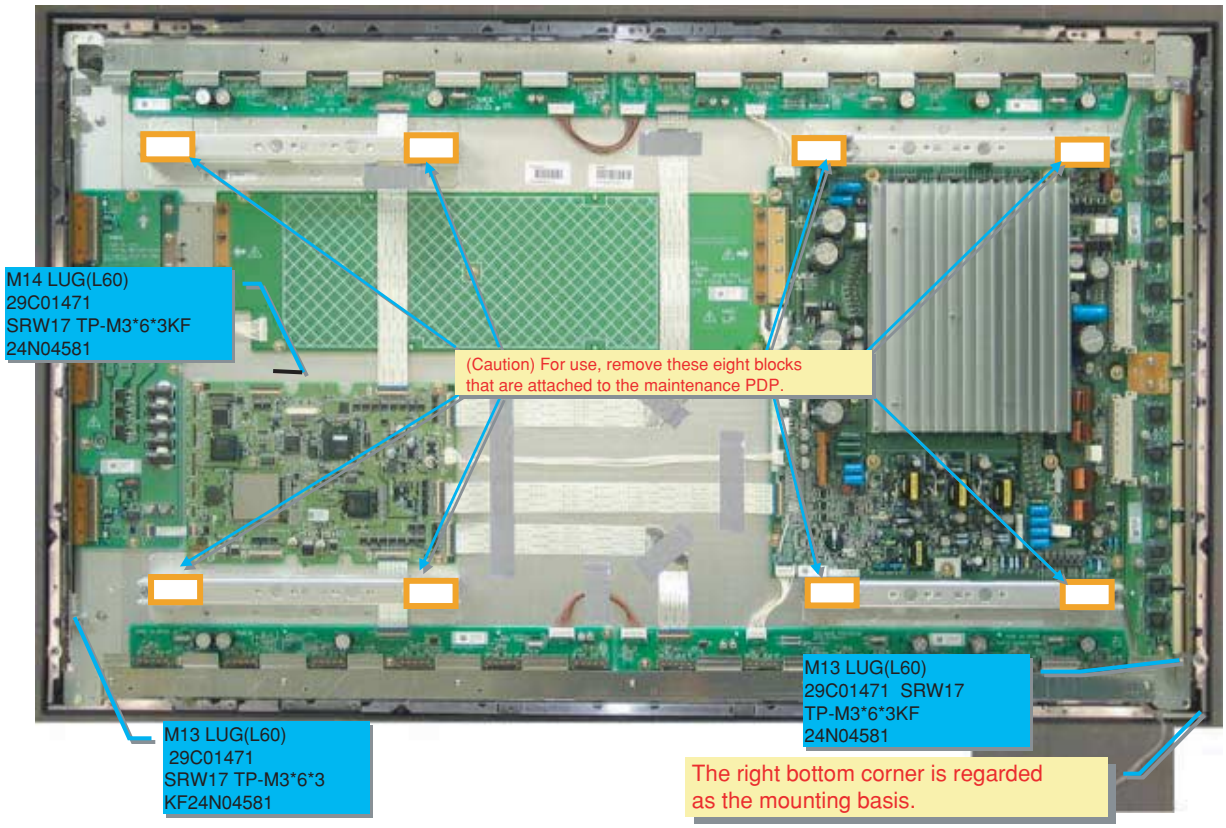


(3)BRACKET OPTION R

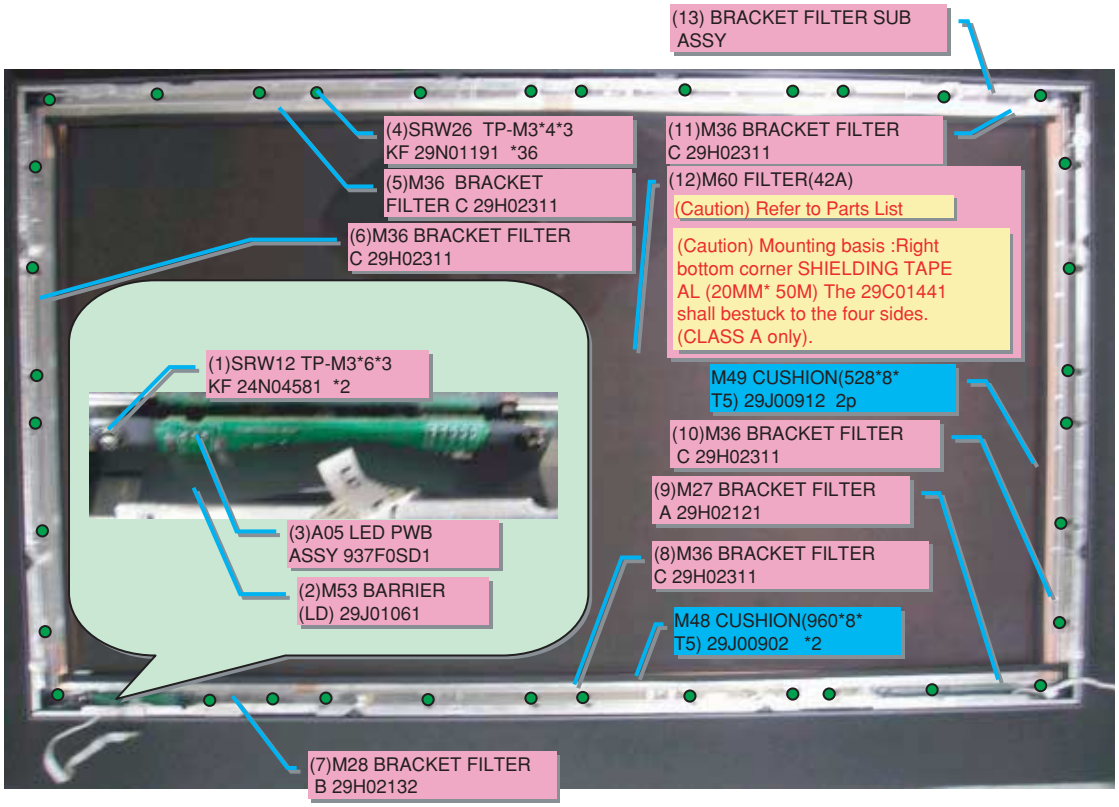


5. PDP

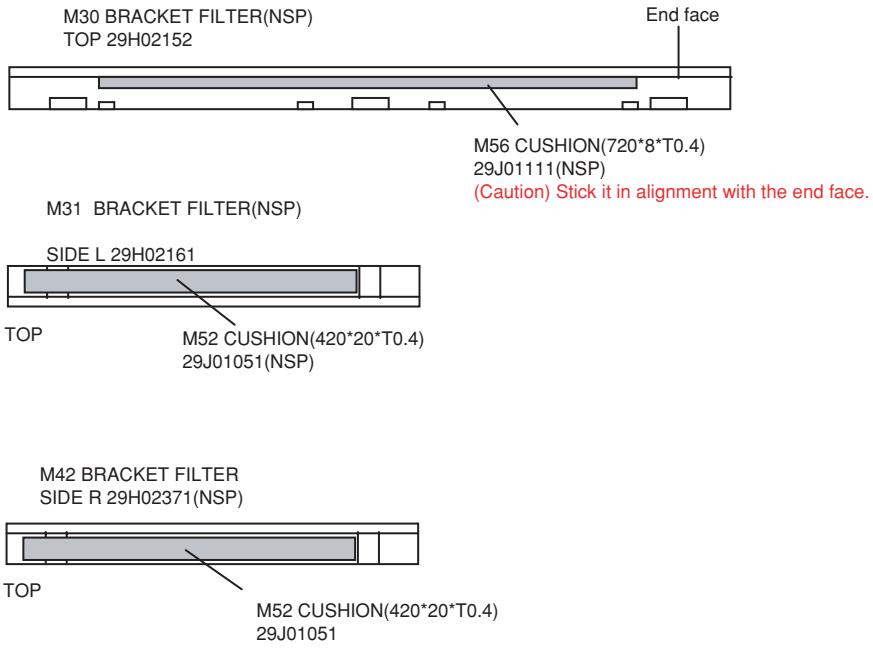




6. BRACKET FILTER(A,B,C)/FILTER/BRACKET FILTER SUB ASSY



7. BRACKET FILTER

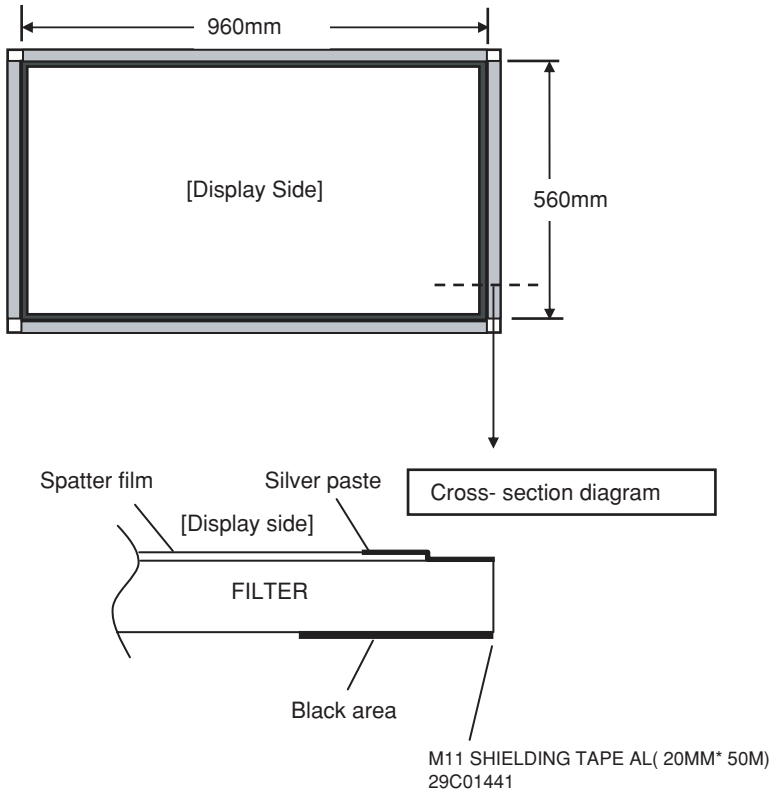


8. FILTER(CLASS A Only)(424MV-F1 Only)

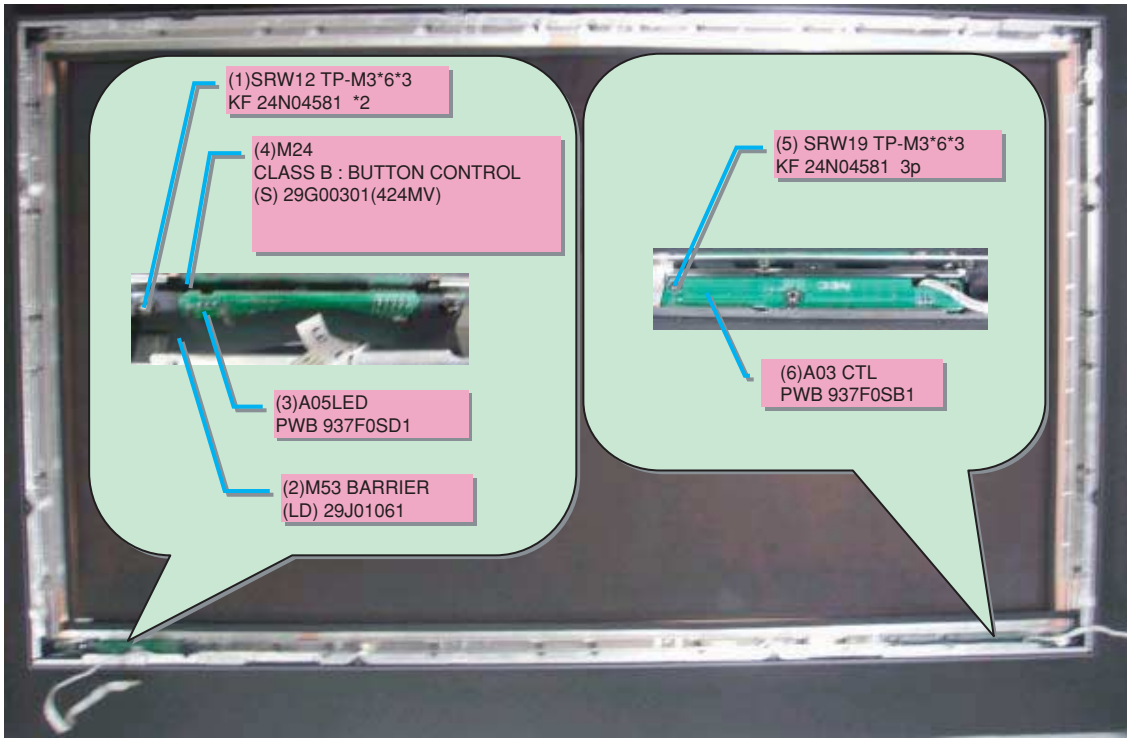
(Caution) No SHIELDING TAPE has been stuck to the service part FILTER. Therefore, in the case of filter replacement, please order the SHIELDING TAPE and stick it as illustrated below.

SHIELDING TAPE

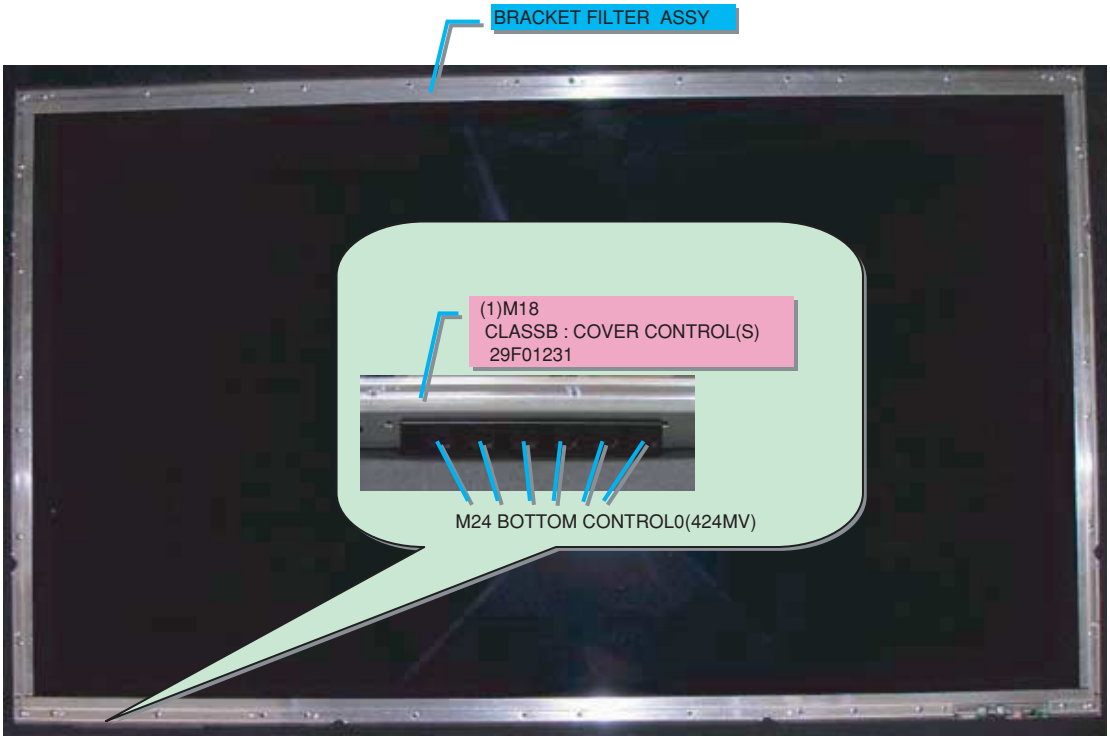
(Caution) Once the shielding tape is removed, it must not be used again because its adhesive strength has been .



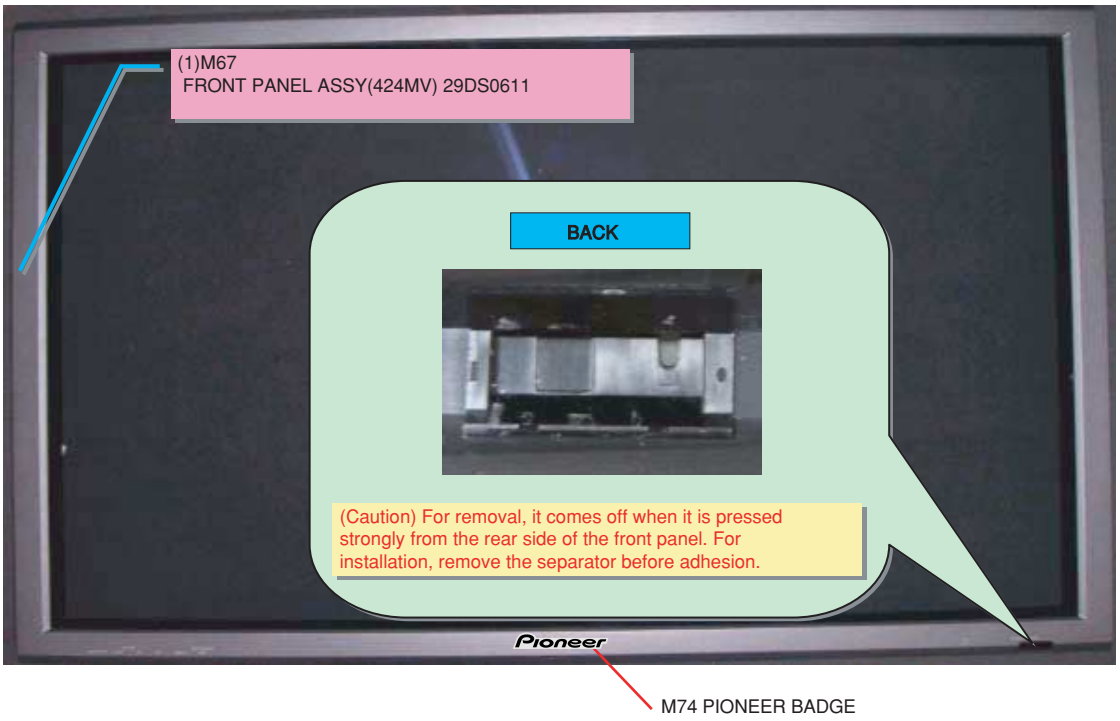
9. CTL PWB/CONTORL BUTTON/LED PWB



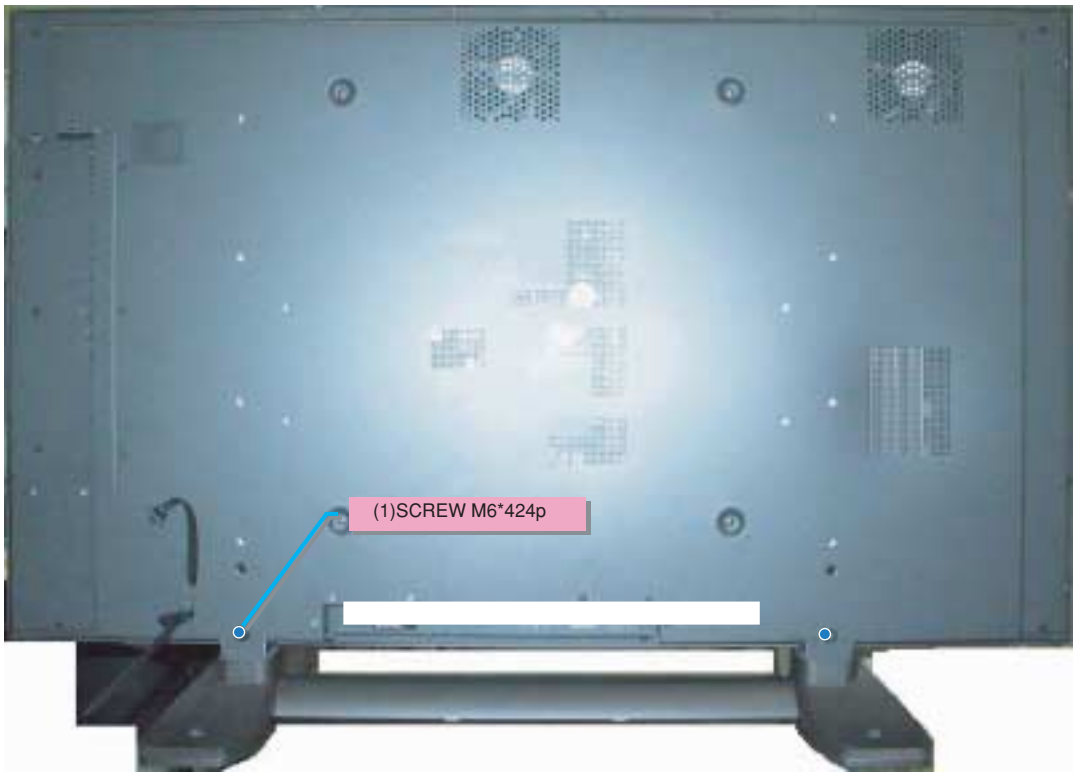
10. COVER CONTROL



11. FRONT PANEL

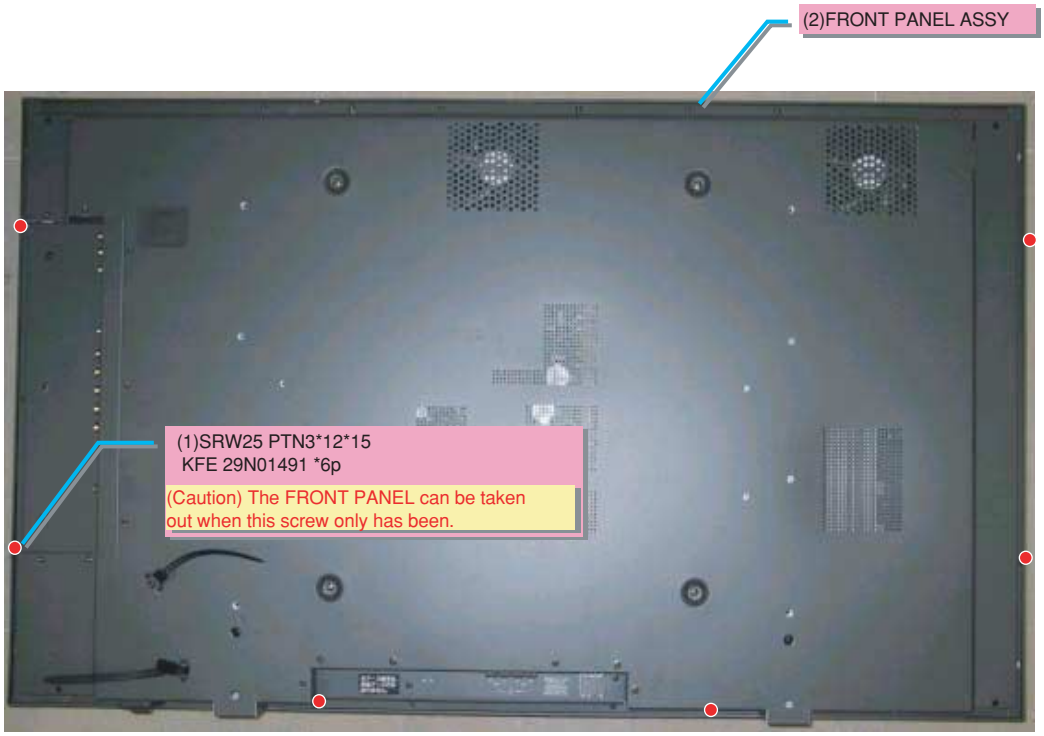


12. STAND(modification)

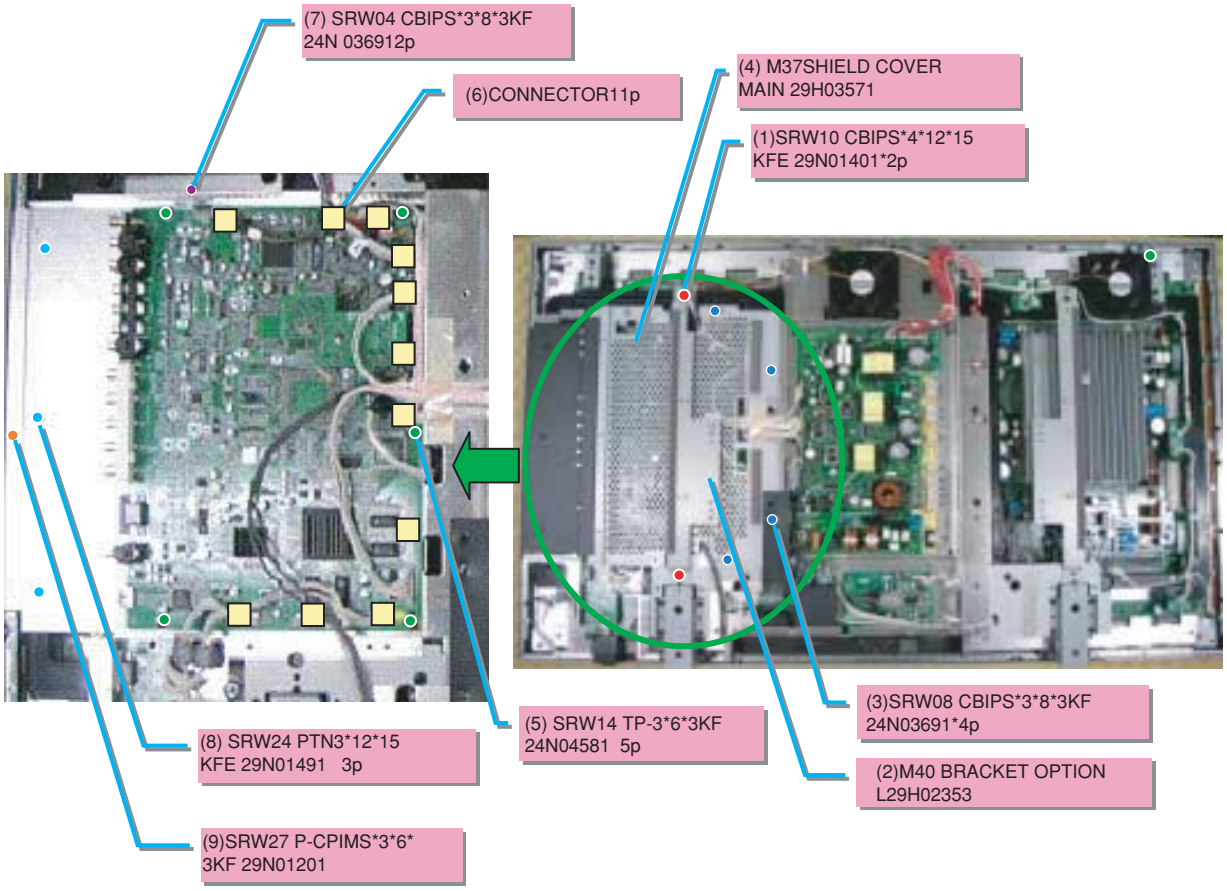


13. BACK COVER(modification)

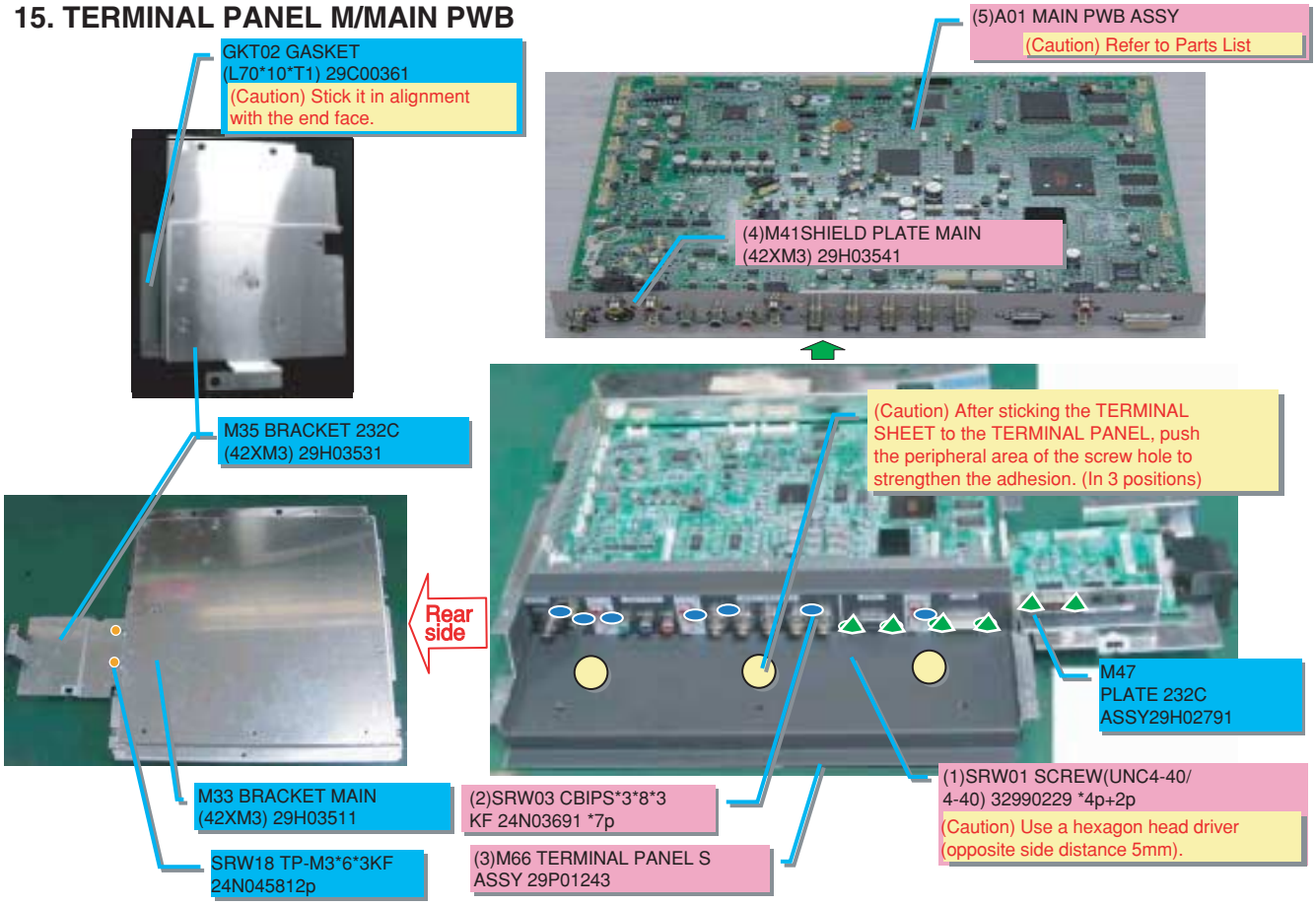
(Caution) The illustration below shows a case when the STAND has been removed.



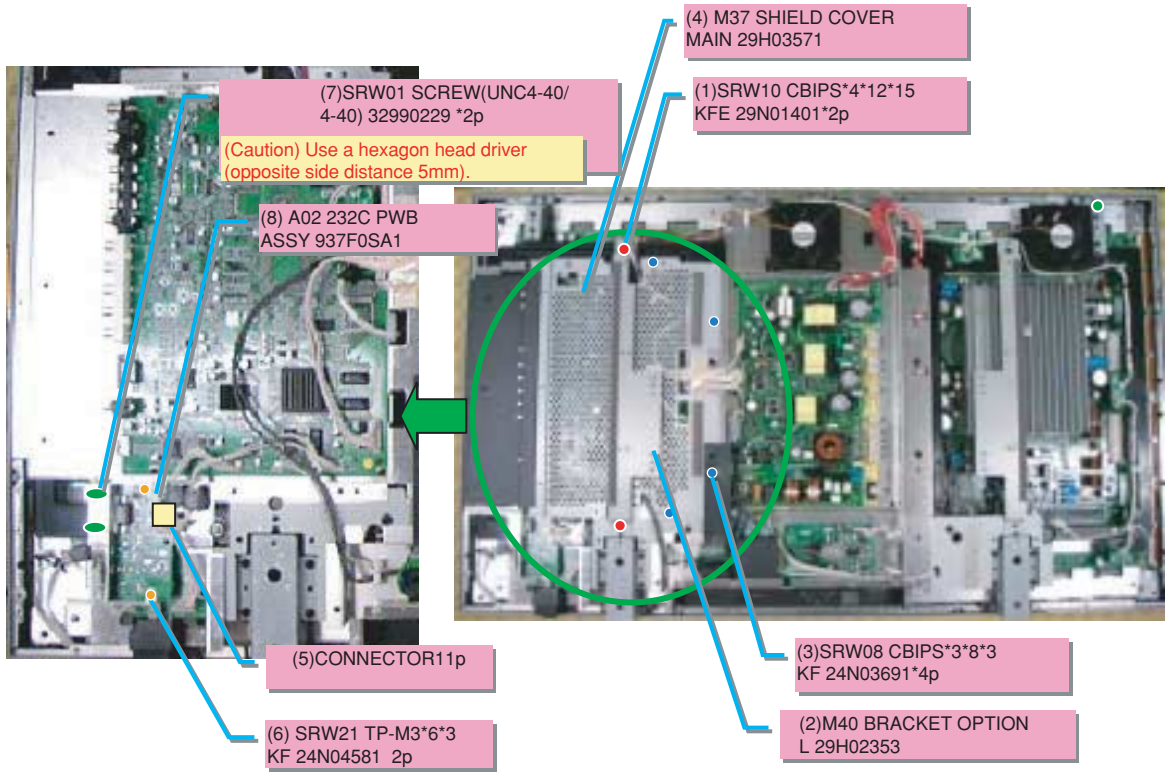
14. TERMINAL PANEL M SUB ASSY



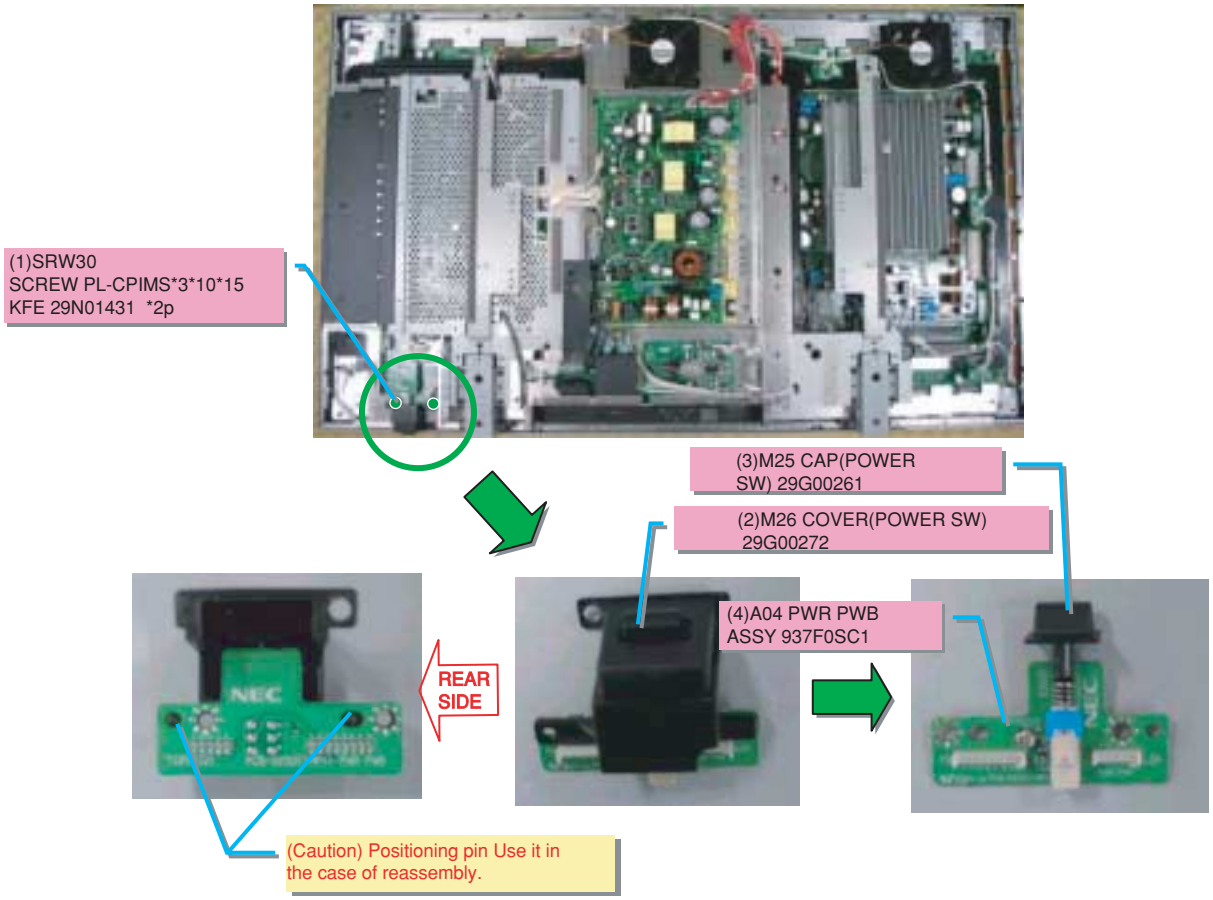
15. TERMINAL PANEL M/MAIN PWB



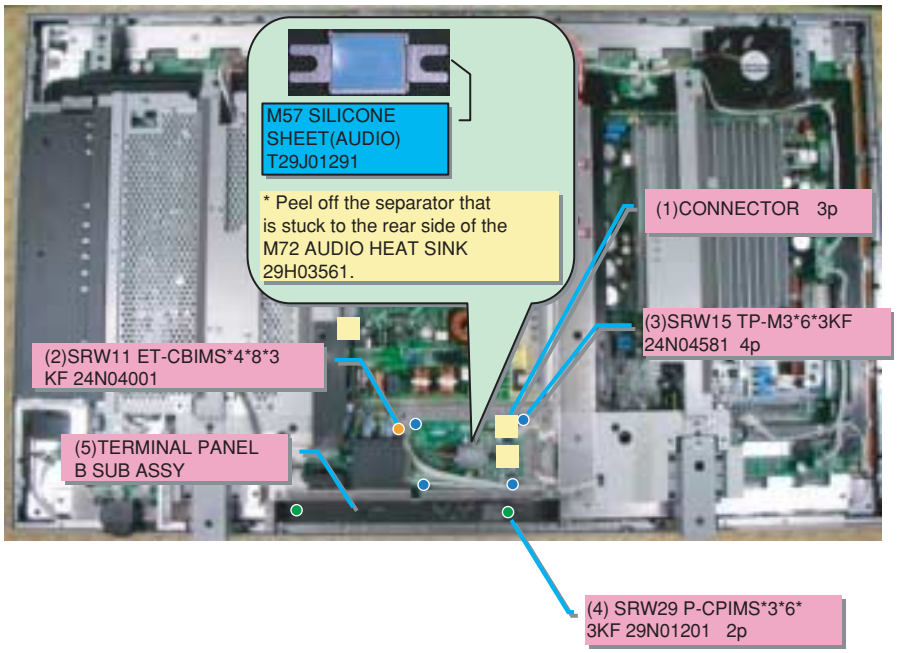
16. BRACKET OPTION L/SHIEL COVER/232C PWB



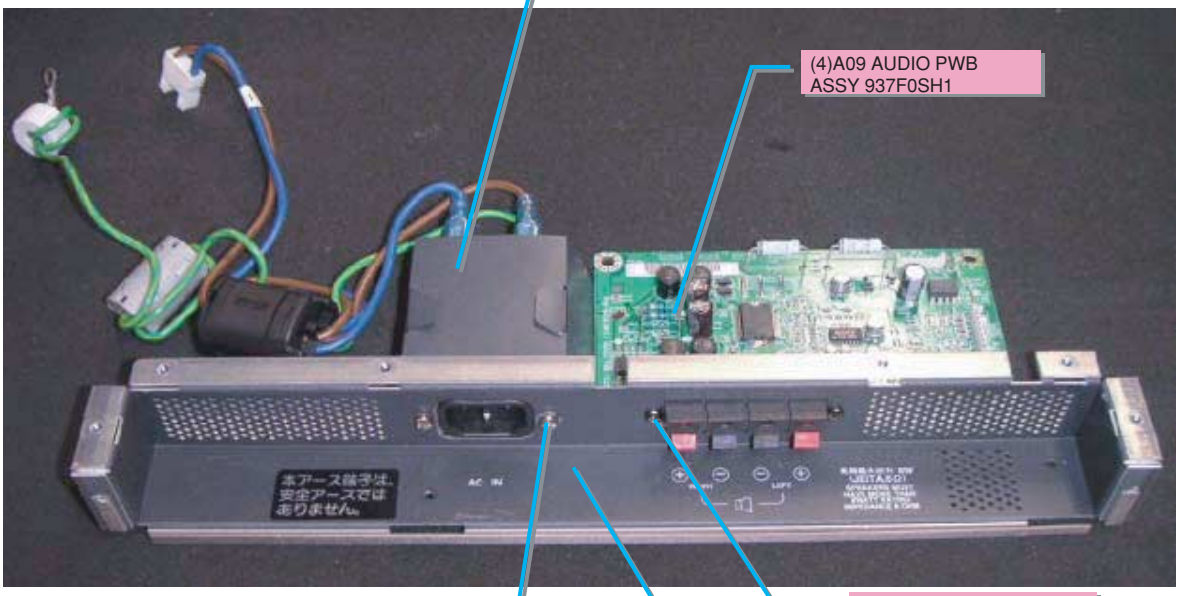
17. POWER BUTTON COVER/POWER BUTTON/PWR PWB



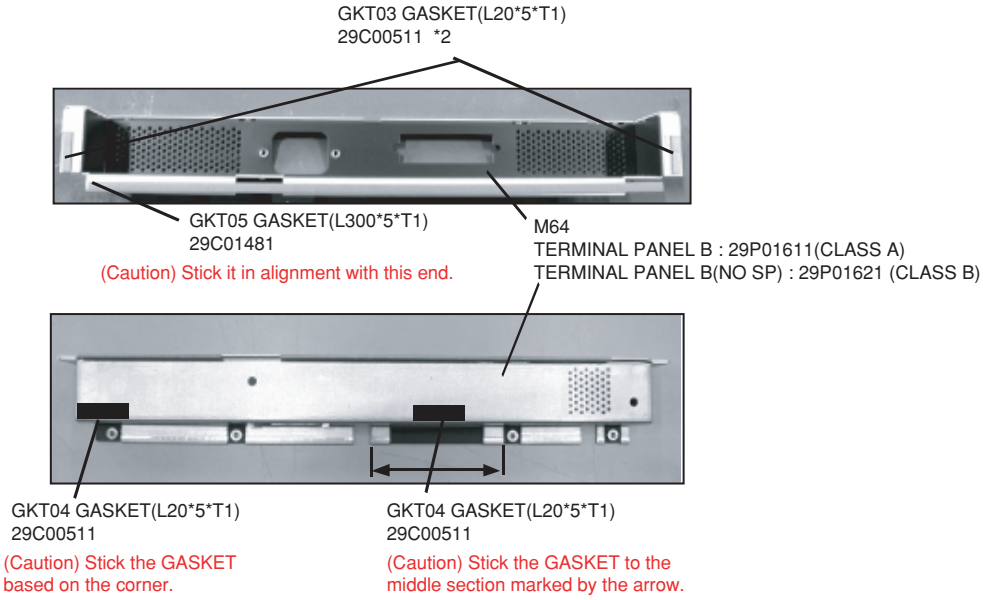
18. TERMINAL PANEL B SUB ASSY



19. TERMINAL PANEL B/AUDIO PWB/AC INLET ASSY

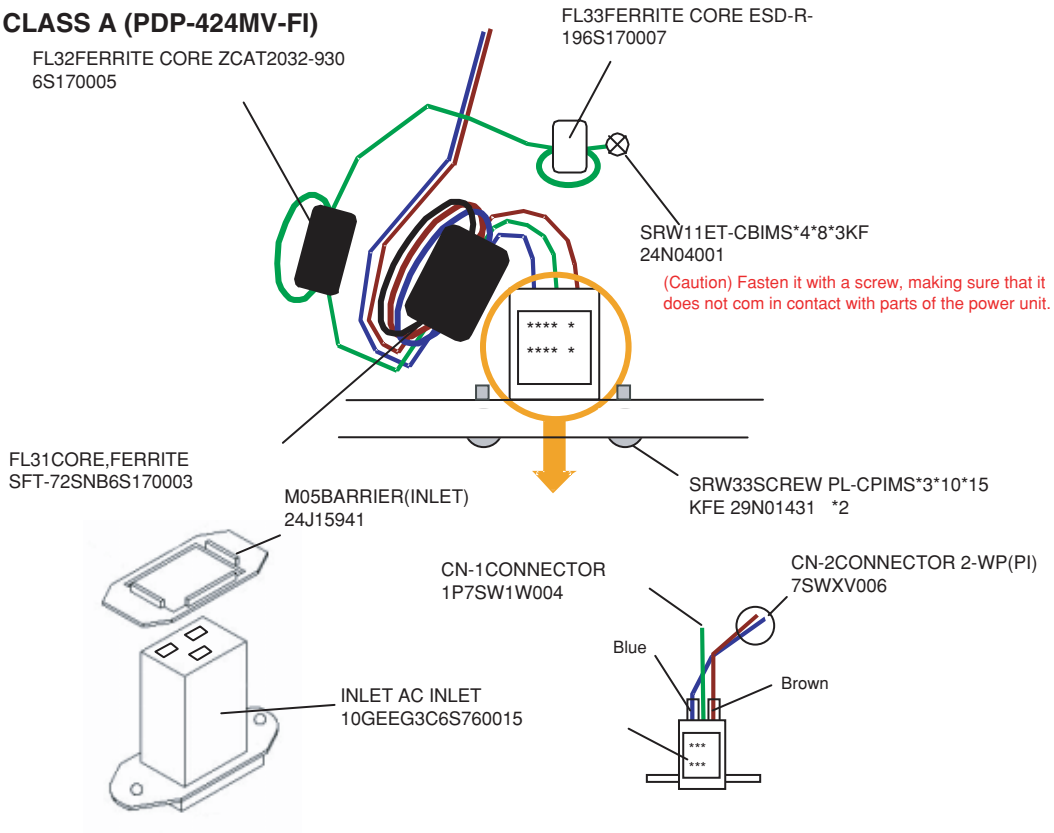


20. TERMINAL PANEL B

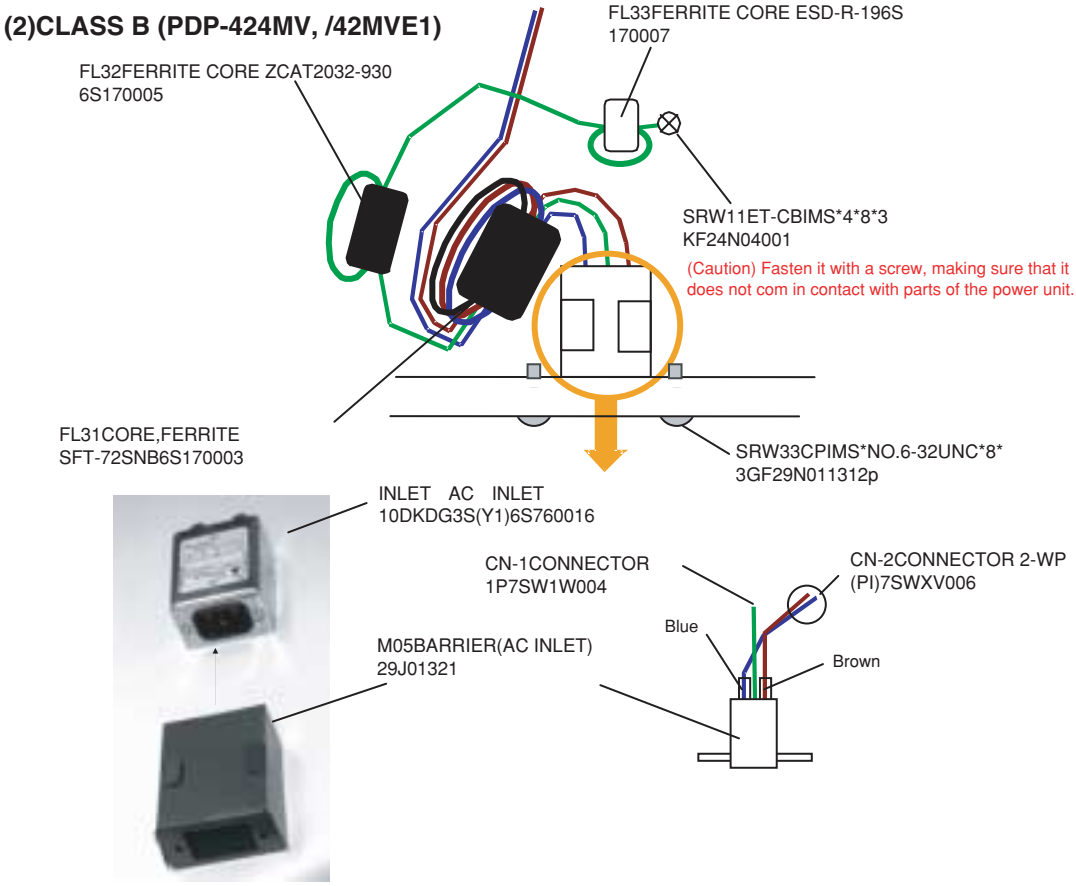


21. AC INLET (Mounting arrangement)

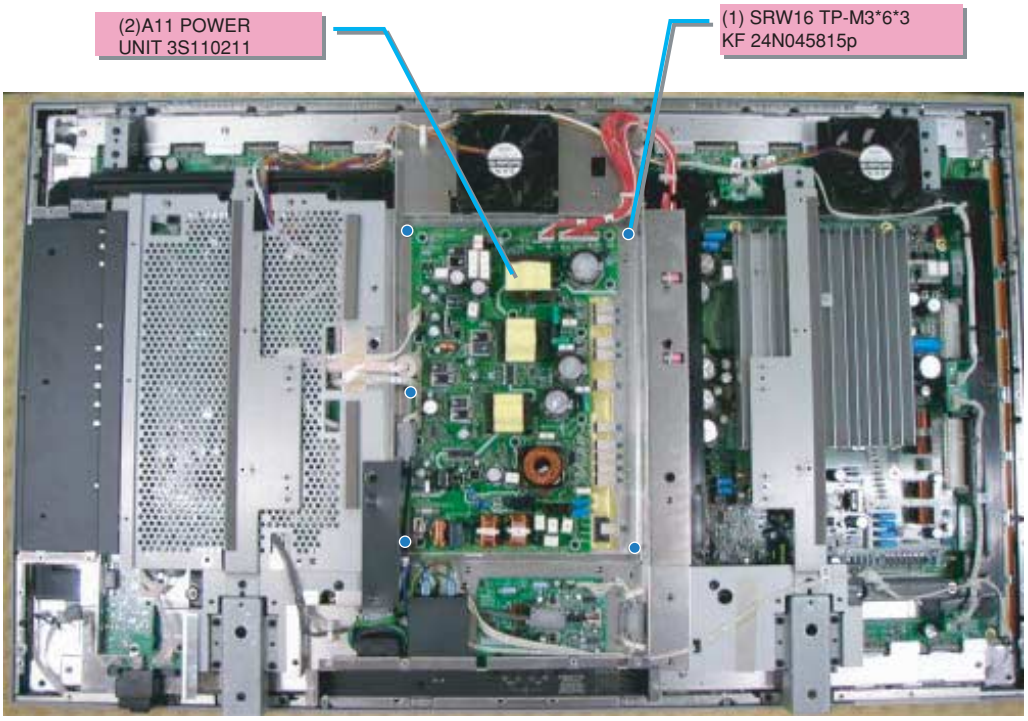
(1) CLASS A (PDP-424MV-FI)



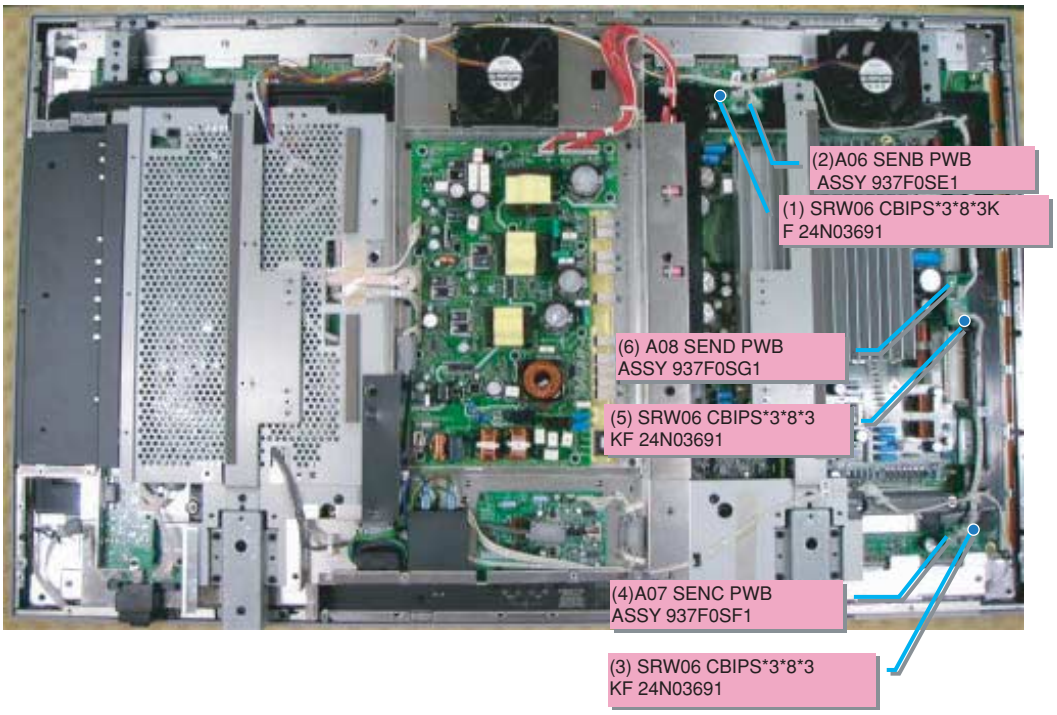
(2)CLASS B (PDP-424MV, /42MVE1)



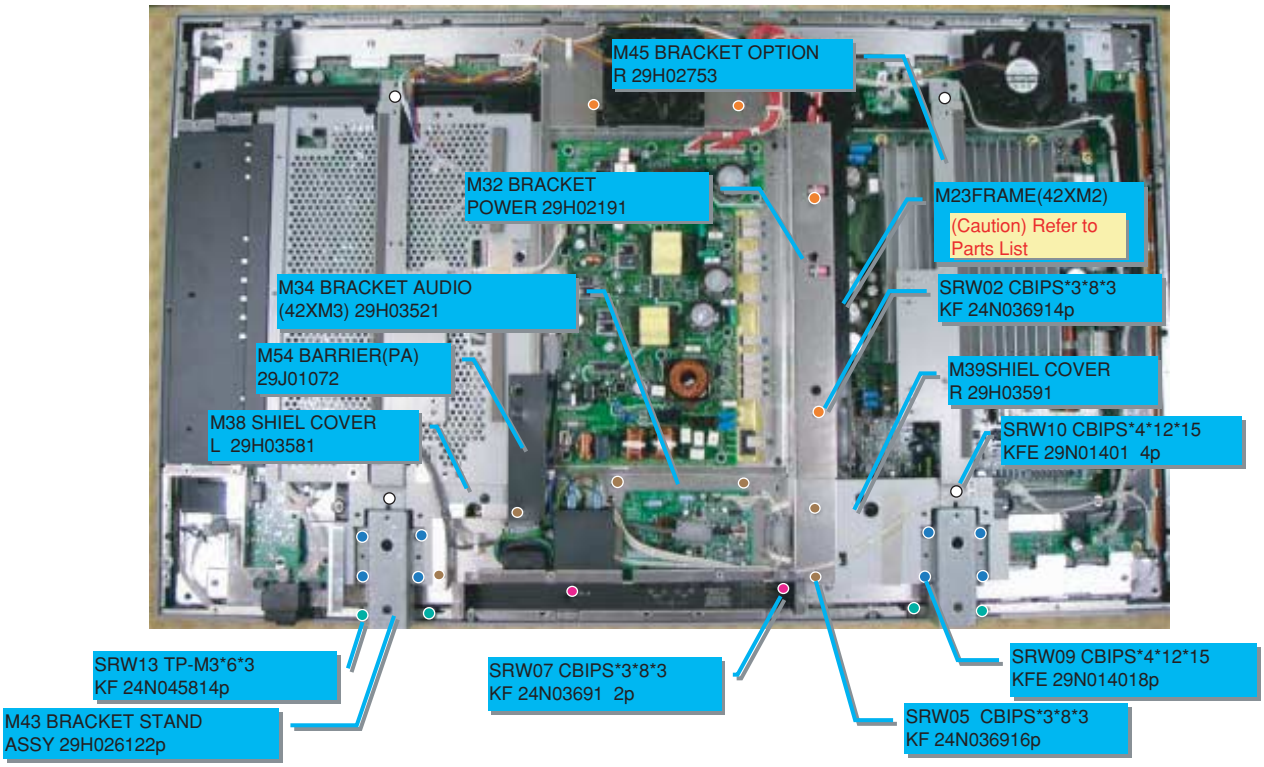
22. POWER UNIT

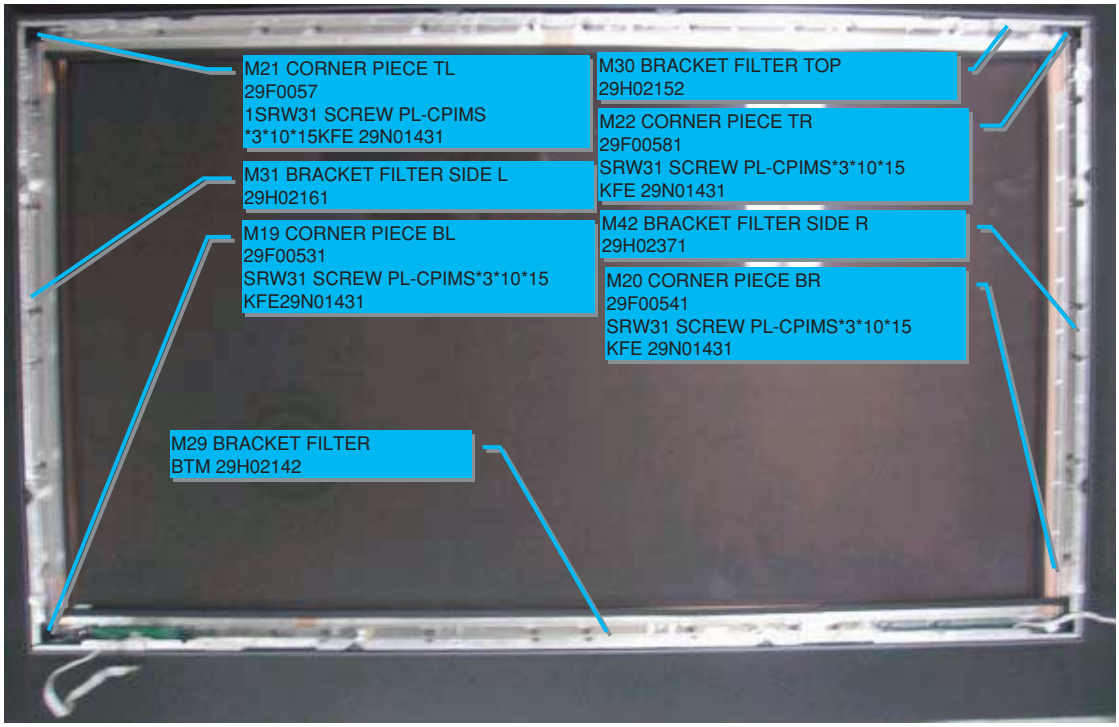


23. SENB PWB/SENC PWB/SEND PWB/FAN



24. MISCELLANEOUS PARTS

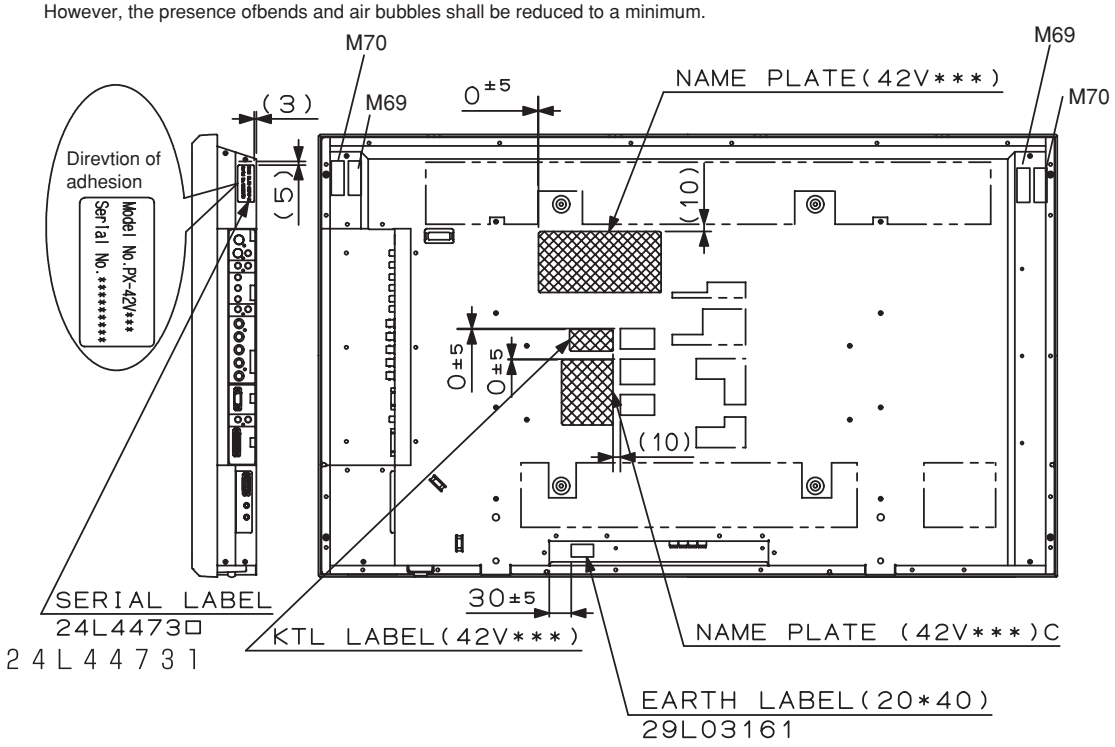




25. LABELS

(1) Positions of adhesion

(1)Stick the labels in the positions on the back cover illustrated below. Dimensions indicated are approximate figures.
However, the presence ofbends and air bubbles shall be reduced to a minimum.



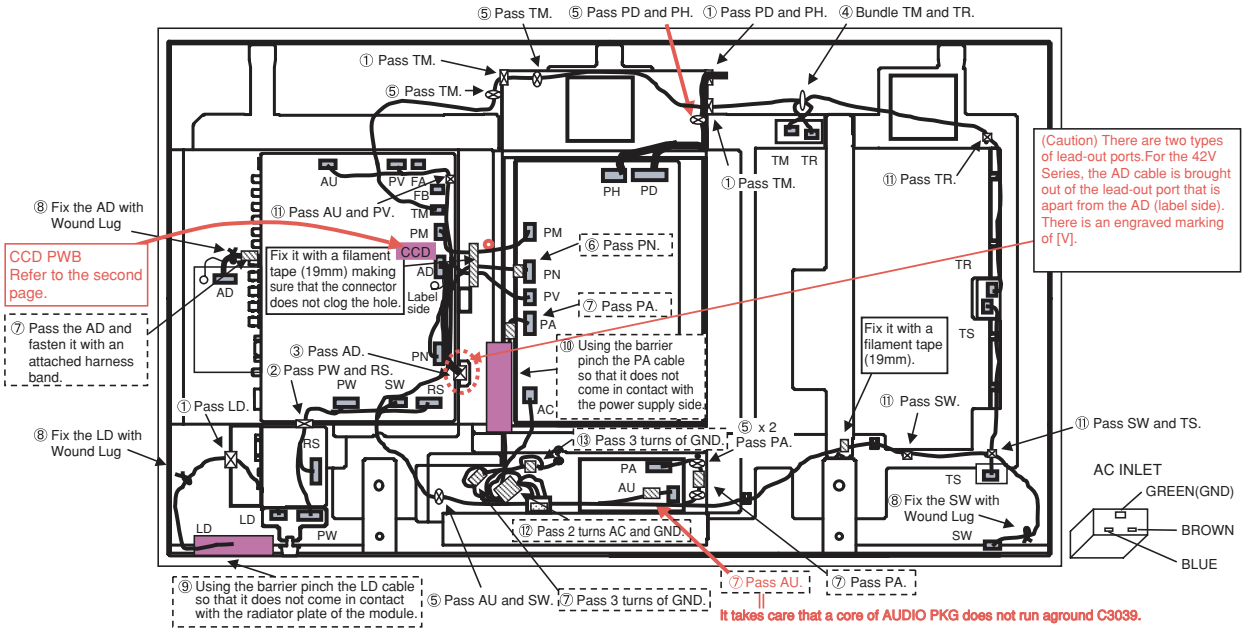
M69 : CAUTION LABEL(J) 29L06881
M70 : CAUTION LABEL(E) 29L06891(424MV_Only)

26. WIRING

(1) CLASS A

(Caution)"Turns"in the illustration below denotes the number of cable turns to be wound around the ferrite core. (Example)3 turns 3 turns of a cable wound around.

PDP-424MV-FI (CLASS A) Wiring Diagram



①EDGING SADDLE(EDS-1208U)	29C00461	4
②EDGE SADDLE(TES-016NV)	29C01431	1
③EDGE SADDLE(TSB-1915)	24C05151	1
④LEAD CLAMPER(D5.2)	24C00091	2
⑤CLAMP(WS-2W-V0)	29C01421	6
⑥CORE,FERRITE TFT-081813N	6S170004	1
⑦FERRITE CORE ZCAT2032-930	6S170005	5

⑧LUG(L60)	29C01471	3
⑨BARRIER(LD)	29J01061	1
⑩BARRIER(PA)	29J01072	1
⑪CLAMP(MWC-2S)	29C01401	4
⑫CORE,FERRITE SFT-72SNB	6S170003	1
⑬FERRITE CORE ESD-R-19	6S170007	1

CCD board of PDP-424MV-FI : Try to push the bush rivet and the connector to check for the freedom from floating.

[Measures to be taken against connector go- through in the CCD PWB]

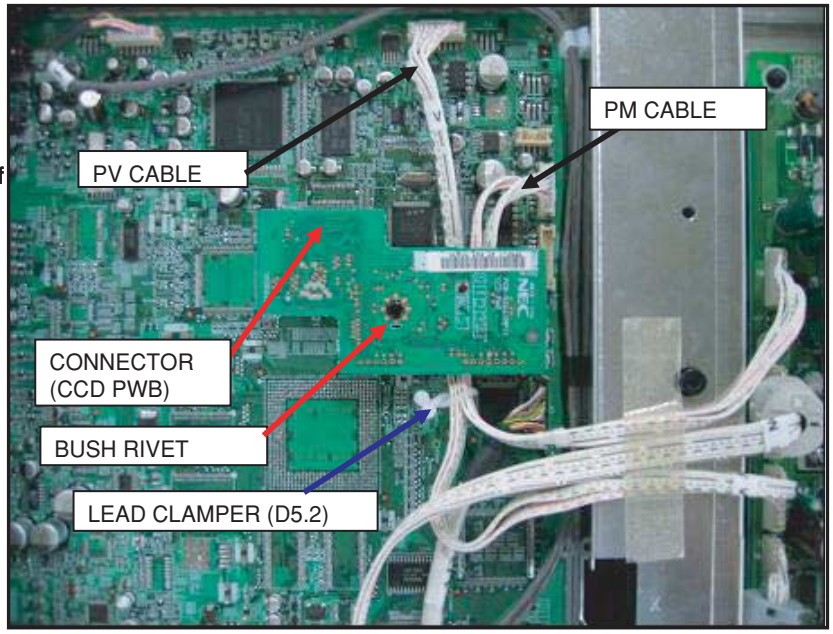
A problem of connector go- through in the CCD PWB can be caused by inadequate workmanship such that a wiring material is pinched between the CCD PWB and the shield lid. To eliminate this problem, wiring work should be carried out as specified below, so that the PV and PM cables are never led to the CCD PWB.

[Model] For North America (Version A only)

[Wiring instructions] (Refer to the diagram below.)

(1) Pass the PV and PM cables beneath the CCD PWB.
(2) Fix the PV and PM cables by means of lead clampers.
(3) Push the bush rivet and the connector to check for the freedom from floating.

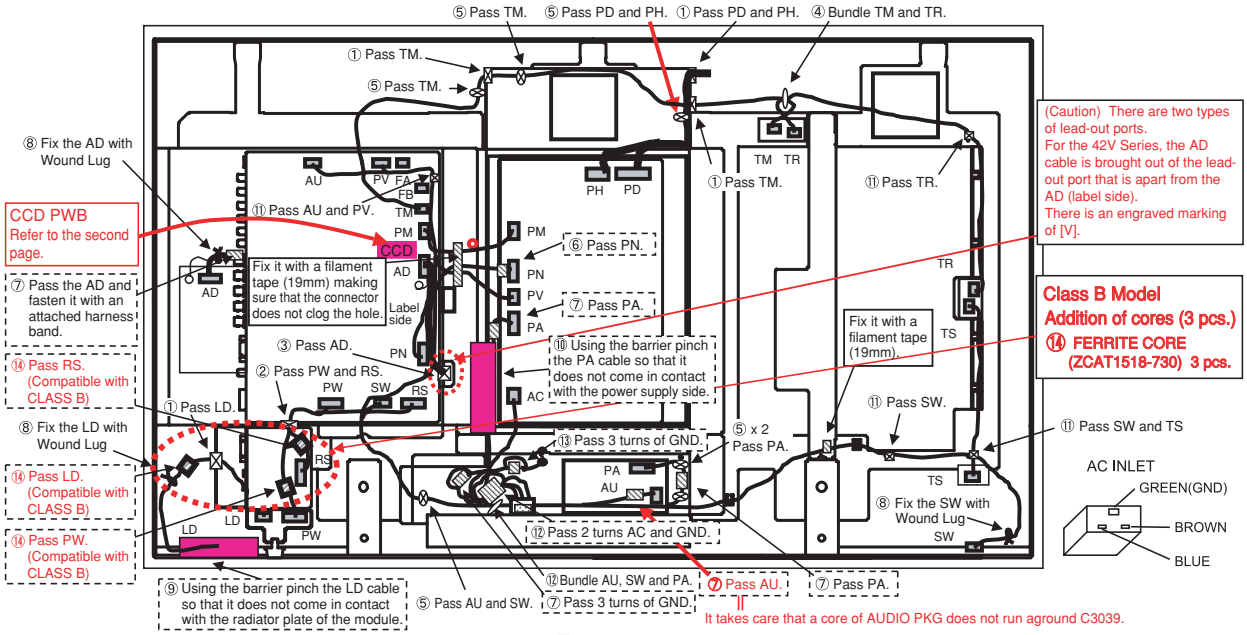
[Lead clampers to be used]
LEAD CLAMPER(D5.2): 24C00091
PDP- 424MV-FI (CLASS A) Wiring Diagram



(2) CLASS B

(Caution)"Turns"in the illustration below denotes the number of cable turns to be wound around the ferrite core. (Example)3 turns 3 turns of a cable wound around.

PDP-424MV (CLASS B) Wiring Diagram
PDP-42MVE1



① EDGING SADDLE(EDS-1208U)	29C00461	4		⑧ LUG(L60)	29C01471	3	
② EDGE SADDLE(TES-016NV)	29C01431	1		⑨ BARRIER(LD)	29J01061	1	
③ EDGE SADDLE(TSB-1915)	24C05151	1		⑩ BARRIER(PA)	29J01072	1	
④ LEAD CLAMPER(D5.2)	24C00091	2		⑪ CLAMP(MWC-2S)	29C01401	4	
⑤ CLAMP(WS-2W-V0)	29C01421	6		⑫ CORE,FERRITE SFT-72SNB	6S170003	1	
⑥ CORE,FERRITE TFT-081813N	6S170004	1		⑬ FERRITE CORE ESD-R-19	6S170007	1	
⑦ FERRITE CORE ZCAT2032-930	6S170005	5		⑭ FERRITE CORE ZCAT1518-0730	6S170006	3	

CCD board of PDP-424MV : Try to push the bush rivet and the connector to check for the freedom from floating.

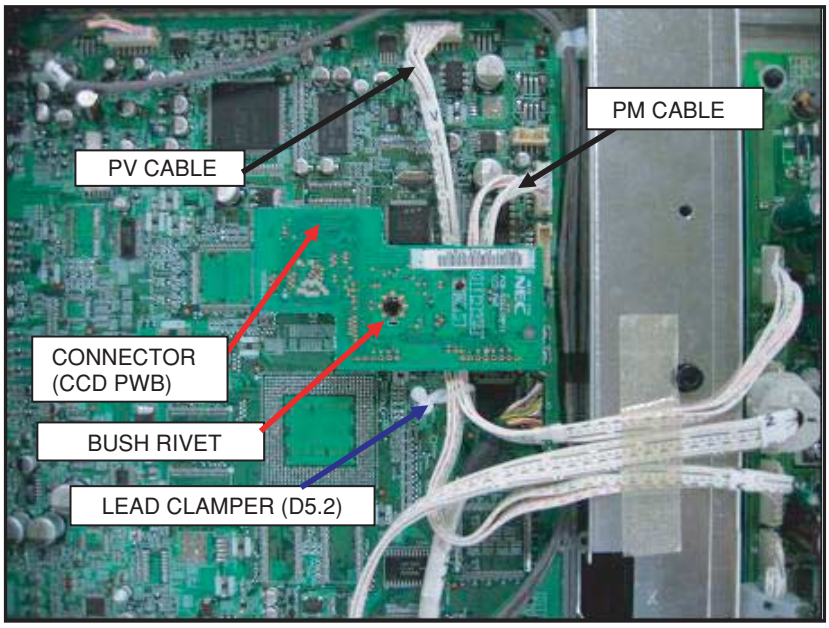
PDP-424MV/42MVE1 (CLASS B) Wiring Diagram

[Measures to be taken against connector go-through in the CCD PWB]
A problem of connector go-through in the CCD PWB can be caused by inadequate workmanship such that a wiring material is pinched between the CCD PWB and the shield lid. To eliminate this problem, wiring work should be carried out as specified below, so that the PV and PM cables are never led to the CCD PWB.

[Model]For North America (Version A only)

[Wiring instructions](Refer to the diagram below.)
(1) Pass the PV and PM cables beneath the CCD PWB.
(2) Fix the PV and PM cables by means of lead clampers.
(3) Push the bush rivet and the connector to check for the freedom from floating.

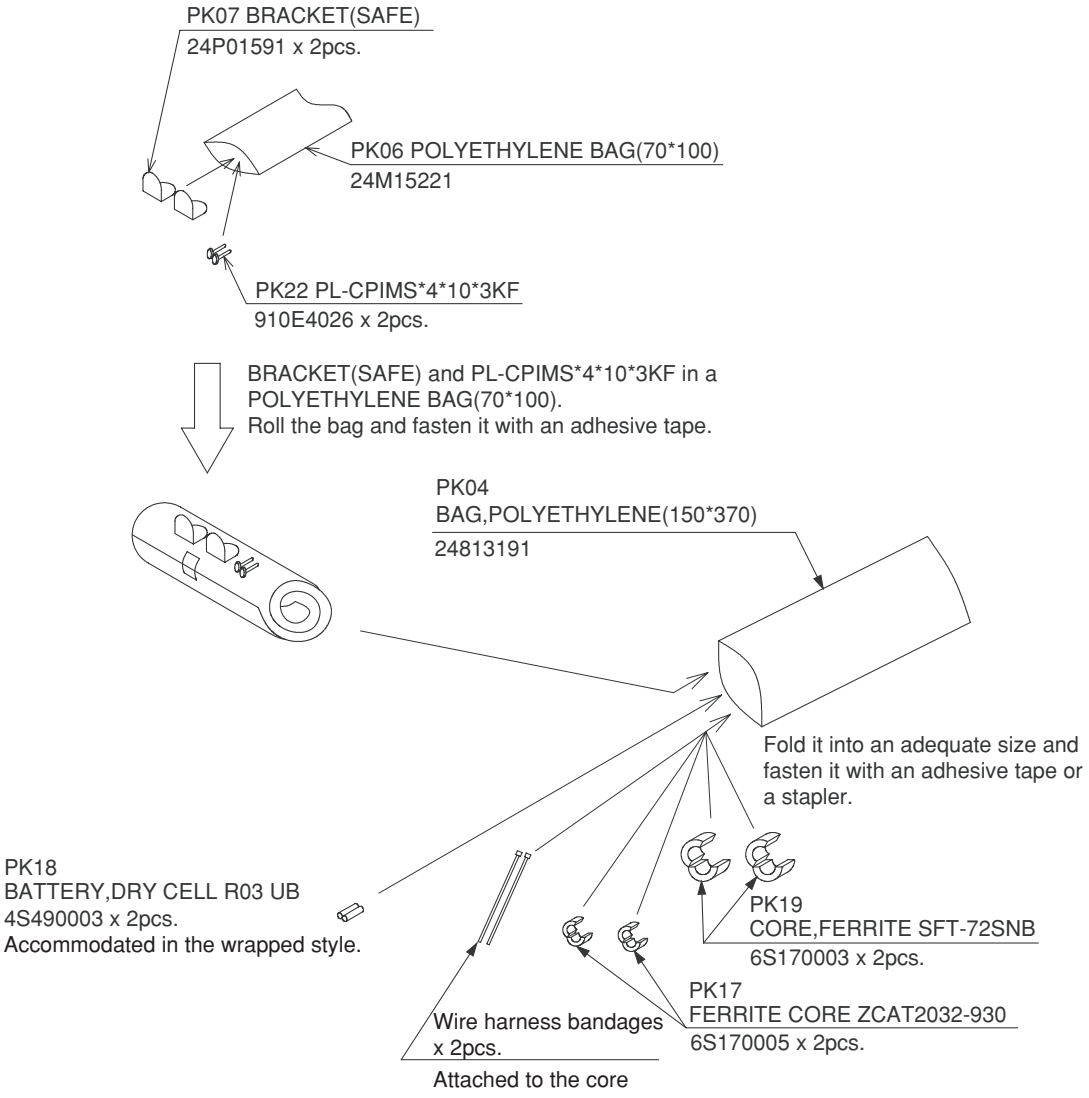
[Lead clampers to be used]
LEAD CLAMPER(D5.2): 24C00091



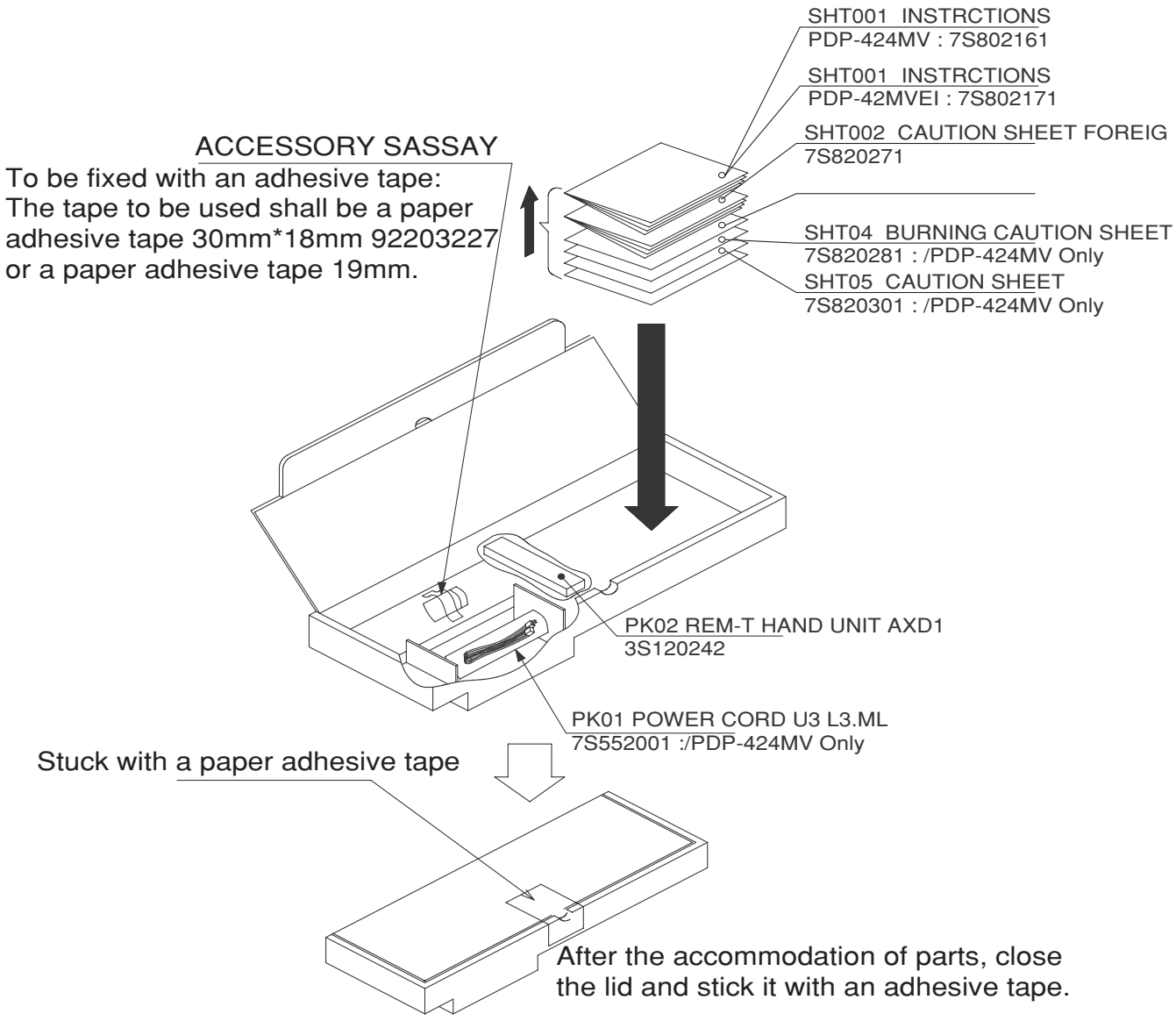
METHOD OF PACKAGING

PDP-424MV and PDP-42MVE1

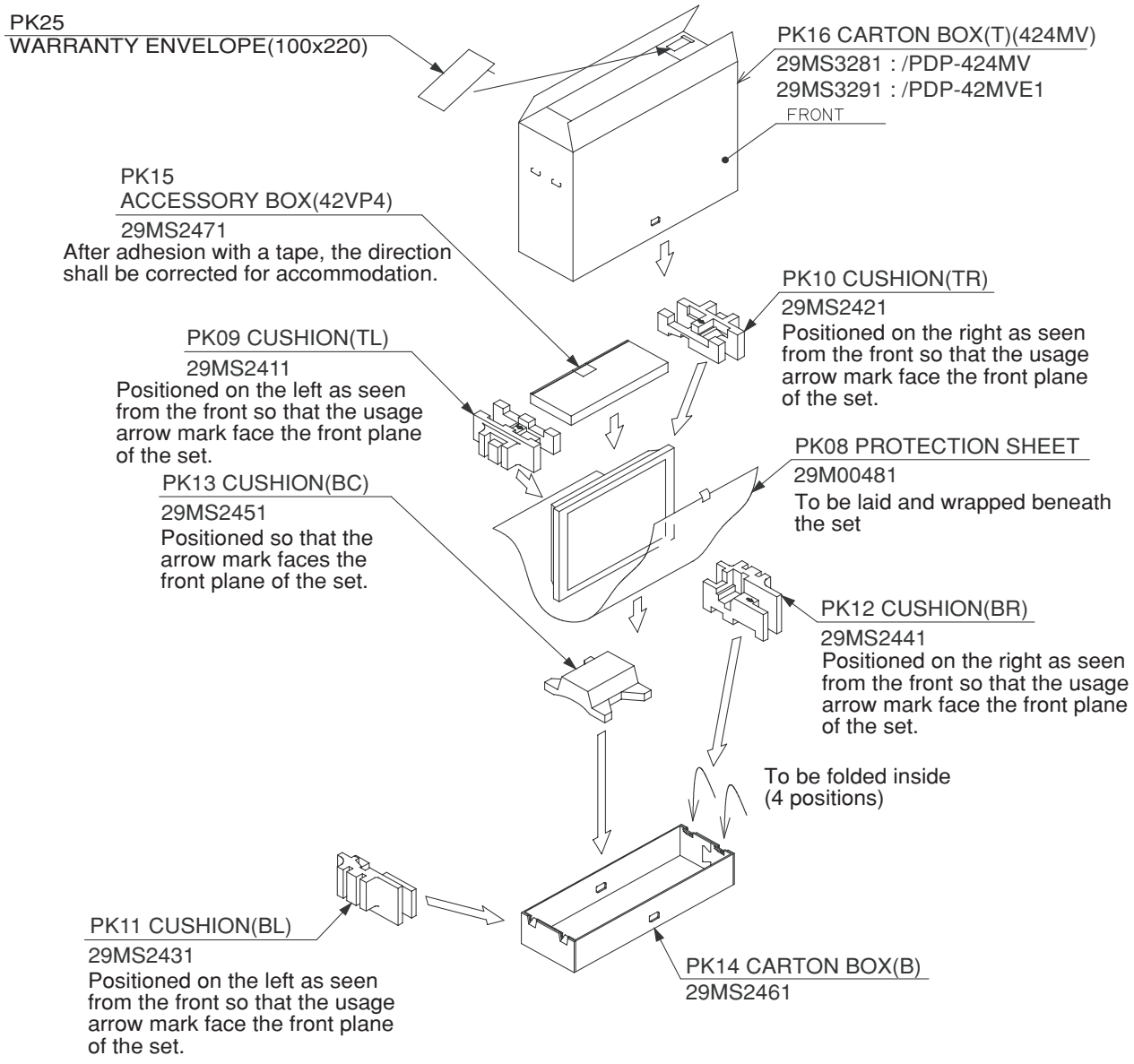
A)BAG ASSY

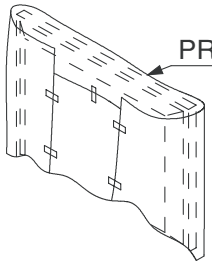


B) ACCESSORY BOX



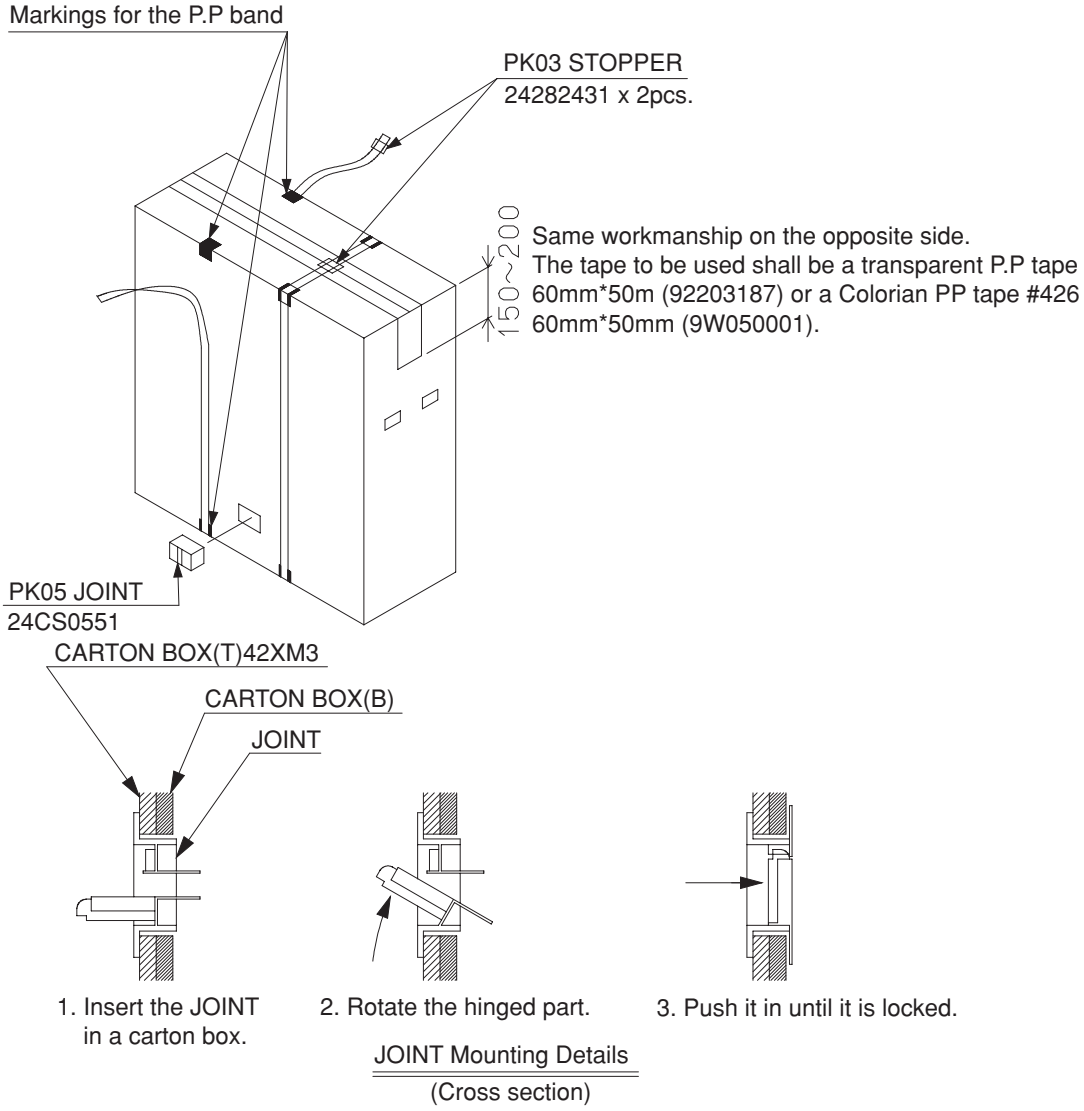
C) CARTON BOX, CUSHION



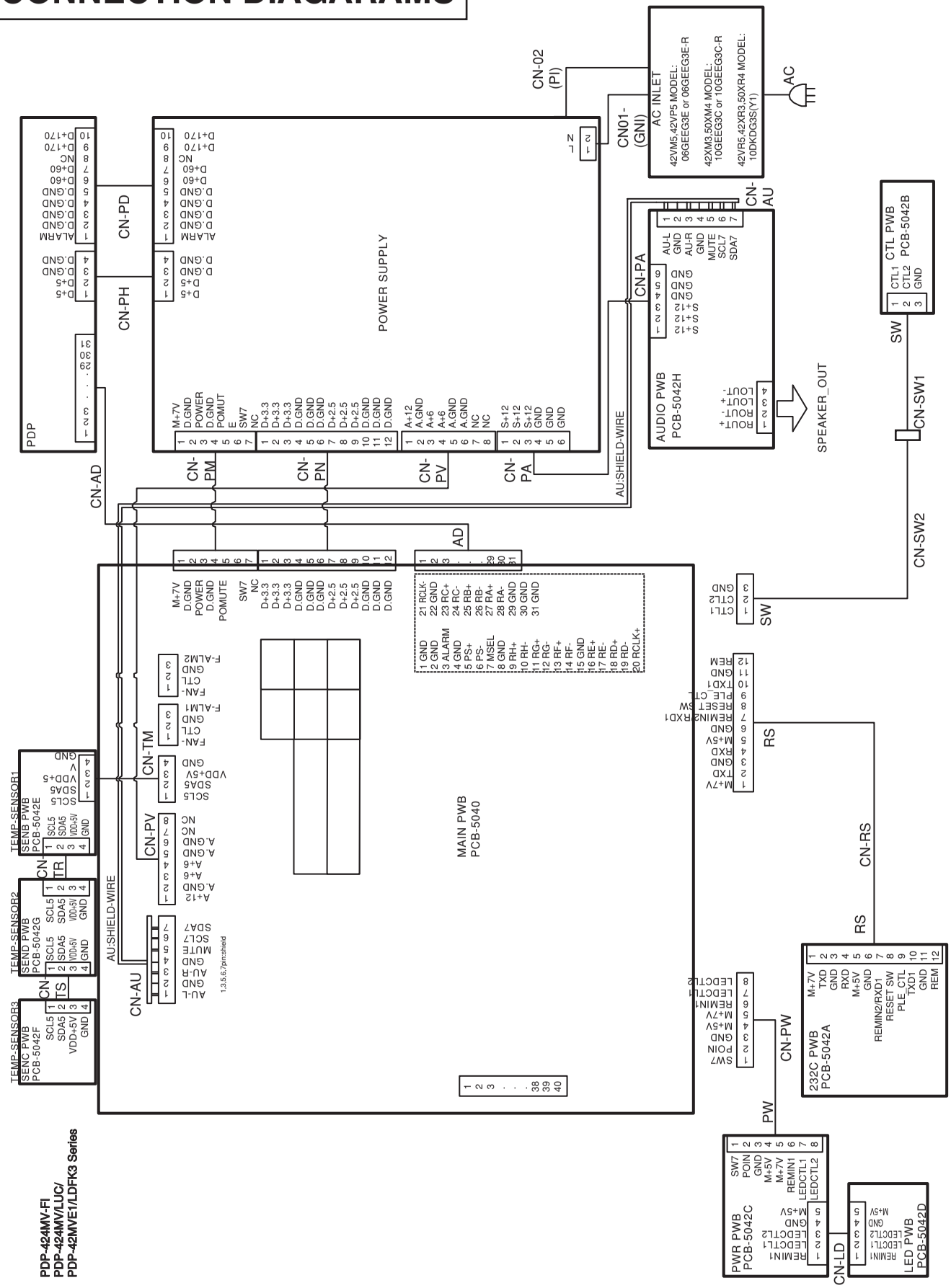


D) JOINT

To be locked by inserting the joints (24CS0551) in 2 positions.
Hang the P.P band based on the marking printed on the carton box edge line and fasten it with a stopper (P.P band) (24282431).



CONNECTION DIAGARAMS



CONNECTOR PIN EXPLANATION

PDP-424MV/PDP-424MV-FI/PDP-42MVE1 Series

(Caution)The operating voltages specified below are used in common irrespective of the presence of signals.In this case,however,part of the operating voltages (red characters)may change according to the signal conditions when the main power supply is turned on (POWER button ON).

Status of LED lighting:♦ for lighting in green.,♦♦ for unlighting.,and ♦♦♦ for lighting in red..

Ver.1

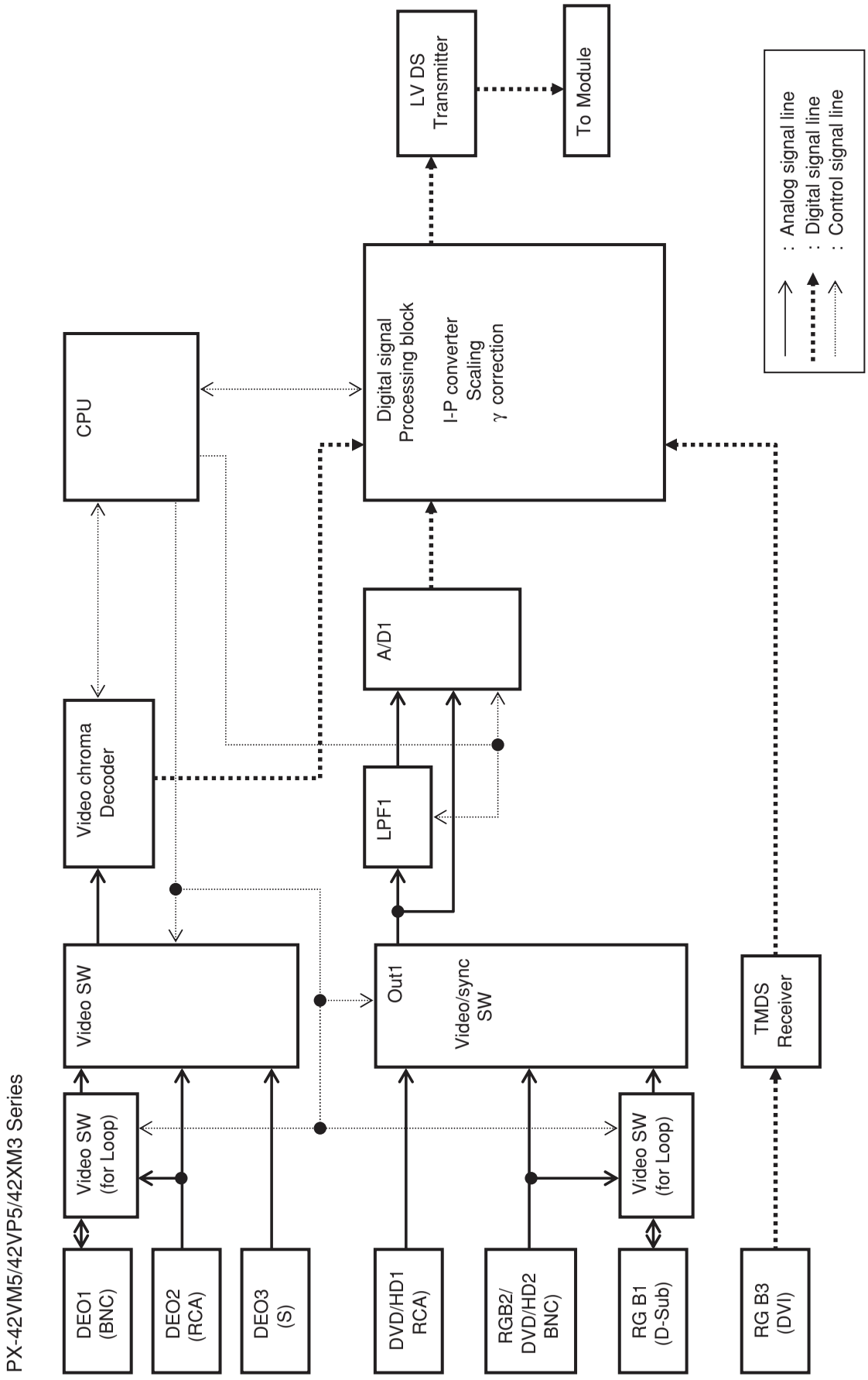
name	Pin NO	Pin name	Function	Basic operation (Numerical unit: Vdc; except for the case when units are individually indicated)							Signal direction
				AC power ON (Power cordconnected tothe wall outlet)	Main power ON (POWER button ON)		Power management	Standby	Main power OFF	AC power OFF(Power cordpulled out ofthe wall outlet)	
					No signal	With signal					
PN	1	D+3.3	3.3V power supply for digital circuits	0	3.3	3.3	0	0	0	-	POWER →MAIN
	2	D+3.3	3.3V power supply for digital circuits	0	3.3	3.3	0	0	0	-	POWER →MAIN
	3	D+3.3	3.3V power supply for digital circuits	0	3.3	3.3	0	0	0	-	POWER →MAIN
	4	D.GND	GND	0	0	0	0	0	0	-	-
	5	D.GND	GND	0	0	0	0	0	0	-	-
	6	D.GND	GND	0	0	0	0	0	0	-	-
	7	D+2.5	2.5V power supply for digital circuits	0	2.5	2.5	0	0	0	-	POWER →MAIN
	8	D+2.5	2.5V power supply for digital circuits	0	2.5	2.5	0	0	0	-	POWER →MAIN
	9	D+2.5	2.5V power supply for digital circuits	0	2.5	2.5	0	0	0	-	POWER →MAIN
	10	D.GND	GND	0	0	0	0	0	0	-	-
	11	D.GND	GND	0	0	0	0	0	0	-	-
	12	D.GND	GND	0	0	0	0	0	0	-	-
PM	1	M+7	7V power supply for microcomputer	6.8	6.8	6.8	6.8	6.8	6.8	-	POWER →MAIN
	2	D.GND	GND	0	0	0	0	0	0	-	-
	3	POWER	Power control	0	4.9	4.9	0	0	0	-	MAIN →POWER
	4	D.GND	GND	0	0	0	0	0	0	-	-
	5	POMUTE	Mute signal for AC power OFF	4.8	4.8	4.8	4.8	4.8	4.8	4.8→-	POWER →MAIN
	6	SW7	Power start control	0	6.8	6.8	6.8	6.8	0	-	POWER →MAIN
	7	NC	Non-connection terminal	-	-	-	-	-	-	-	-
PV	1	A+12	12V power supply for analog circuits	0	12	12	0	0	0	-	POWER →MAIN
	2	A.GND	GND	0	0	0	0	0	0	-	-
	3	A+6	6V power supply for analog circuits	0	6	6	0	0	0	-	POWER →MAIN
	4	A+6	6V power supply for analog circuits	0	6	6	0	0	0	-	POWER →MAIN
	5	A.GND	GND	0	0	0	0	0	0	-	-
	6	A.GND	GND	0	0	0	0	0	0	-	-
	7	NC	Non-connection terminal	-	-	-	-	-	-	-	-
	8	NC	Non-connection terminal	-	-	-	-	-	-	-	-
AU	1	AU_L	Audio signal L CH	0	Selected input signals are output.	Selected input signals are output.	0	0	0	-	MAIN →AUDIO
	2	GND	GND	0	0	0	0	0	0	-	-
	3	AU_R	Audio signal R	0	Selected input signals are output.	Selected input signals are output.	0	0	0	-	MAIN →AUDIO
	4	GND	GND	0	0	0	0	0	0	-	-
	5	MUTE	Mute signal of audio output	3.5	3.5→0	3.5→0	3.5→0	3.5→0	3.5	3.5→-	MAIN →AUDIO
	6	SCL7	Clock line of the I2C bus	0	Clock signal (5Vac) when data are received; 5Vdc when no data are received.	Clock signal (5Vac) when data are received; 5Vdc when no data are received.	0	0	0	-	MAIN →AUDIO
	7	SDA7	Data line of the I2C bus	0	Clock signal (5Vac) when data are received; 5Vdc when no data are received.	Clock signal (5Vac) when data are received; 5Vdc when no data are received.	1	1	0	-	MAIN →AUDIO
RS	1	M+5V	5V power supply for microcomputer	0	5	5	5	5	0	-	MAIN →RS232C
	2	TXD	RS232 driver output	0	Clock signal (3.3Vac) when data are received;3.3Vdc when no data are received.	Clock signal (3.3Vac) when data are received;3.3Vdc when no data are received.	Clock signal (3.3Vac) when data are received;3.3Vdc when no data are received.	Clock signal (3.3Vac) when data are received;3.3Vdc when no data are received.	0	-	MAIN →RS232C
	3	GND	GND	0	0	0	0	0	0	-	-
	4	RXD	RS232 receiver input	0	Clock signal (3.3Vac) when data are received;3.3Vdc when no data are received.	Clock signal (3.3Vac) when data are received;3.3Vdc when no data are received.	Clock signal (3.3Vac) when data are received;3.3Vdc when no data are received.	Clock signal (3.3Vac) when data are received;3.3Vdc when no data are received.	0	-	RS232C →MAIN
	5	M+3.3V	3.3V power supply for microcompute	0	3.3	3.3	3.3	3.3	0	-	MAIN →RS232C
	6	GND	GND	0	0	0	0	0	0	-	-
	7	REMIN2/RXD 1	Data signal of wired remote control	0	Clock signal (3.3Vac) when data are received;3.3Vdc when no data are received.	Clock signal (3.3Vac) when data are received;3.3Vdc when no data are received.	Clock signal (3.3Vac) when data are received;3.3Vdc when no data are received.	Clock signal (3.3Vac) when data are received;3.3Vdc when no data are received.	0	-	RS232C →MAIN
	8	RESET SW	NC	-	-	-	-	-	-	-	-
	9	PLE_CTL	PLE control	0	3.3V duning data transmission for Video WOLL 0V when no data are transmitted	3.3V duning data transmission for Video WOLL 0V when no data are transmitted	3.3V duning data transmission for Video WOLL 0V when no data are transmitted	0	0	-	MAIN →RS232C
	10	TXD1	RS232 driver output	0	Clock signalused during data transmission (5Vac)5Vdc when no data are transmitted.	Clock signalused during data transmission (5Vac)5Vdc when no data are transmitted.	Clock signalused during data transmission (5Vac)5Vdc when no data are transmitted.	0	0	-	MAIN →RS232C

name	Pin NO	Pin name	Function	Basic operation (Numerical unit: Vdc; except for the case when units are individually indicated)							Signal direction
				AC power ON (Power cordconnected tothe wall outlet)	Main power ON (POWER button ON)		Power management	Standby	Main power OFF	AC power OFF(Power cordpulled out ofthe wall outlet)	
					No signal	With signal					
										-	
	11	232C_SHUT	ON/OFF	0	3.3	3.3	3.3	3.3	0	-	MAIN→RS232C
	12	REM	Insertion detection for wired remotecontrol input	0	3.3V when a wired remotecontrol is connected/When not connected.	3.3V when a wired remotecontrol is connected/When not connected.	3.3V when a wired remotecontrol is connected/When not connected.	3.3V when a wired remotecontrol is connected/When not connected.	0	-	RS232C→MAIN
				-	-	-	-	-	-	-	(NC for Model R)
TM	1	SCL5	Clock line of the I2C bus	0	Clock signal used during transmission (3.3Vac)3.3Vdc when no data are transmitted.	Clock signal used during transmission (3.3Vac)3.3Vdc when no data are transmitted.	0	0	0	-	MAIN→SENB
	2	GND	GND	0	0	0	0	0	0	-	-
	3	VDD+3.3V	3.3V power supply for analog signals	0	3.3	3.3	0	0	0	-	MAIN→SENB
	4	SDA5	Data line of the I2C bus	0	During data exchange:Clock signal(3.3Vac), Data not exchanged: 3.3Vdc	During data exchange:Clock signal(3.3Vac), Data not exchanged: 3.3Vdc	0	0	0	-	MAIN←→SENB
TR	1	SCL5	Clock line of the I2C bus	0	Clock signal used during transmission (3.3Vac)3.3Vdc when no data are transmitted.	Clock signal used during transmission (3.3Vac)3.3Vdc when no data are transmitted.	0	0	0	-	SENB→SEND
	2	GND	GND	0	0	0	0	0	0	-	-
	3	VDD+3.3V	3.3V power supply for analog signals	0	0	0	0	0	0	-	SENB→SEND
	4	SDA5	Data line of the I2C bus	0	During data exchange:Clock signal(3.3Vac), Data not exchanged: 3.3Vdc	During data exchange:Clock signal(3.3Vac), Data not exchanged: 3.3Vdc	0	0	0	-	SENB←→SEND
TS	1	SCL5	Clock line of the I2C bus	0	Clock signal used during transmission (3.3Vac)3.3Vdc when no data are transmitted.	Clock signal used during transmission (3.3Vac)3.3Vdc when no data are transmitted.	0	0	0	-	SEND→SENC
	2	GND	GND	0	0	0	0	0	0	-	-
	3	VDD+3.3V	3.3V power supply for analog signals	0	3.3	3.3	0	0	0	-	SEND→SENC
	4	SDA5	Data line of the I2C bus	0	During data exchange:Clock signal(3.3Vac), Data not exchanged: 3.3Vdc	During data exchange:Clock signal(3.3Vac), Data not exchanged: 3.3Vdc	0	0	0	-	SEND←→SENC
AD	1	GND	GND	0	0	0	0	0	0	-	-
	2	GND	GND	0	0	0	0	0	0	-	-
	3	ALARM	Module alarm signal	0	5Vdc during normal PDP operation; 0V when the PDP is out of order.	5Vdc during normal PDP operation; 0V when the PDP is out of order.	0	0	0	-	PDP→MAIN MAIN→FAN
	4	GND	GND	0	0	0	0	0	0	-	-
	5	PS+	PSS input PS+		PSS LVDS serial differential PS+ input 0Vac; Bias 1.1Vdc	PSS LVDS serial differential PS+ input 0.3Vac; Bias 1.25Vdc	0	0	0	-	PDP→MAIN
	6	PS-	PSS input PS-	0	PSS LVDS serial differential PS+ input 0Vac; Bias 1.4Vdc	PSS LVDS serial differential PS+ input 0.3Vac; Bias 1.25Vdc	0	0	0	-	PDP→MAIN
	7	MSEL	42V5 compatible interface OFF	0	0	0	0	0	0	-	-
	8	GND	GND	0	0	0	0	0	0	-	-
	9	RH+	OSD system output H+	0	OSD LVD Sserial differential H+ output 0Vac ;Bias 1.1Vdc	OSD LVD Sserial differential H+ output 0Vac ;Bias 1.1Vdc	0	0	0	-	MAIN→PDP
	10	RH-	OSD system output H-	0	OSD LVD Sserial differential H- output 0Vac ;Bias 1.4Vdc	OSD LVD Sserial differential H- output 0Vac ;Bias 1.4Vdc	0	0	0	-	MAIN→PDP
	11	RG+	OSD system output G+	0	OSD LVDS serial differential G+ output 0.3Vac;Bias 1.25Vdc	OSD LVDS serial differential G+ output 0.3Vac;Bias 1.25Vdc	0	0	0	-	MAIN→PDP

name	Pin NO	Pin name	Function	Basic operation (Numerical unit: Vdc; except for the case when units are individually indicated)							Signal direction
				AC power ON (Power cordconnected tothe wall outlet)	Main power ON (POWER button ON)		Power management	Standby	Main power OFF	AC power OFF(Power cordpulled out ofthe wall outlet)	
					No signal	With signal					
	11	RG+	OSD system output G+	0	OSD LVDS serial differential G+output 0.3Vac;Bias 1.25Vdc	OSD LVDS serial differential G+output 0.3Vac;Bias 1.25Vdc	0	0	0	-	MAIN→PDP
	12	RG-	OSD system output G-	0	OSD LVDS serial differential G-output 0.3Vac;Bias 1.25Vdc	OSD LVDS serial differential G-output 0.3Vac;Bias 1.25Vdc	0	0	0	-	MAIN→PDP
	13	RF+	Mode system output F+	0	Video mode LVDS serial differential F+output 0.3Vac;Bias 1.25Vdc	Video mode LVDS serial differential F+output 0.3Vac;Bias 1.25Vdc	0	0	0	-	MAIN→PDP
	14	RF-	Mode system output F-	0	Video mode LVDS serial differential F-output 0.3Vac;Bias 1.25Vdc	Video mode LVDS serial differential F-output 0.3Vac;Bias 1.25Vdc	0	0	0	-	MAIN→PDP MAIN→PDP
	15	GND	GND	0	0	0	0	0	0	-	-
	16	RE+	Video system output E+	0	Video mode LVDS serial differential E+output 0Vac;Bias 1.1Vdc	Video mode LVDS serial differential E+output 0.3Vac;Bias 1.1Vdc*	0	0	0	-	MAIN→PDP
	17	RE-	Video system output E-	0	Video mode LVDS serial differential E-output 0Vac;Bias 1.4Vdc	Video mode LVDS serial differential E-output 0.3Vac;Bias 1.25Vdc*	0	0	0	-	MAIN→PDP
	18	RD+	Video system output D+	0	Video mode LVDS serial differential D+output 0Vac;Bias 1.1Vdc	Video mode LVDS serial differential D+output 0.3Vac;Bias 1.25Vdc	0	0	0	-	MAIN→PDP
	19	RD-	Video system output D-	0	Video mode LVDS serial differential D-output 0Vac;Bias 1.4Vdc	Video mode LVDS serial differential D-output 0Vac;Bias 1.25Vdc	0	0	0	-	MAIN→PDP
	20	RCLK+	Video system output clock+	0	Video data clock LVDS serial differential clock+ output 0.3Vac; Bias1.25Vdc	Video data clock LVDS serial differential clock+ output 0.3Vac; Bias1.25Vdc	0	0	0	-	MAIN→PDP
	21	RCLK-	Video system output clock-	0	Video data clock LVDS seria ldifferential clock- output 0.3Vac; Bias1.25Vdc	Video data clock LVDS seria ldifferential clock- output 0.3Vac; Bias1.25Vdc	0	0	0	-	MAIN→PDP
	22	GND	GND	0	0	0	0	0	0	-	-
	23	RC+	Video system output C+	0	Video data LVDS serial differential C+ output 0.3Vac; Bias 1.25Vdc	Video data LVDS serial differential C+ output 0.3Vac; Bias 1.25Vdc	0	0	0	-	MAIN→PDP
	24	RC-	Video system output C-	0	Video data LVDS serial differential C- output 0.3Vac; Bias 1.25Vdc	Video data LVDS serial differential C- output 0.3Vac; Bias 1.25Vdc					MAIN→PDP
	25	RB+	Video system output B+	0	Video data LVDS serial differential B+ output 0Vac; Bias 1.1Vdc	Video data LVDS serial differential B+ output 0Vac; Bias 1.1Vdc	0	0	0	-	MAIN→PDP
	26	RB-	Video system output B-		Video data LVDS serial differential B-output 0Vac; Bias 1.4Vdc	Video data LVDS serial differential B-output 0.3Vac; Bias 1.25Vdc	0	0	0	-	MAIN→PDP
	27	RA+	Video system output A+		Video data LVDS serial differential A+output 0Vac; Bias 1.4Vdc	Video data LVDS serial differential A+output 0.3Vac; Bias 1.25Vdc					MAIN→PDP
	28	RA-	Video system output A-		Video data LVDS serial differential A-output 0Vac; Bias 1.4Vdc	Video data LVDS serial differential A-output 0.3Vac; Bias 1.25Vdc					MAIN→PDP
	29	GND	GND	0	0	0	0	0	0	-	-
	30	GND	GND	0	0	0	0	0	0	-	-
	31	GND	GND	0	0	0	0	0	0	-	-

name	Pin NO	Pin name	Function	Basic operation (Numerical unit: Vdc; except for the case when units are individually indicated)							Signal direction
				AC power ON (Power cordconnected tothe wall outlet)	Main power ON (POWER button ON)		Power management	Standby	Main power OFF	AC power OFF(Power cordpulled out ofthe wall outlet)	
					No signal	With signal					
LD	1	REMIN1	Infrared remote control data	0	Clock signal (5Vac) when data are received; 5Vdc when no data are received.	Clock signal (5Vac) when data are received; 5Vdc when no data are received.	Clock signal (5Vac) when data are received; 5Vdc when no data are received. 0	Clock signal (5Vac) when data are received; 5Vdc when no data are received. 0	0	-	LED→PWR
	2	LEDCTL1	Standby red LED control		0	0					PWR→LED
	3	LEDCTL2	POWER ON green LED control		3.3	3.3					PWR→LED
	4	GND	GND		0	0					
	5	M+5V	5V power supply for microcomputer		0	0					PWR→LED
PW	1	SW7	Power start control		6.8	6.8	0	0	0	-	PW→MAIN
	2	POIN	Power start detection		3.3	3.3					PW→MAIN
	3	GND	GND		0	0					
	4	M+5V	5V power supply for microcomputer		5	5					MAIN→PW
	5	M+7V	7V power supply for microcomputer		6.8	6.8					MAIN→PW
	6	REMIN1	Infrared remote control data	0 0	Clock signal (5Vac) when data are received; 5Vdc when no data are received.	Clock signal (5Vac) when data are received; 5Vdc when no data are received.	Clock signal (5Vac) when data are received; 5Vdc when no data are received.	Clock signal (5Vac) when data are received; 5Vdc when no data are received.		- -	PW→MAIN
	7	LEDCTL1	Standby red LED control		0	0	0	0	0	-	MAIN→PW
	8	LEDCTL2	POWER ON green LED control		3.3	3.3	0	0	0	-	MAIN→PW
SW	1	CTL1	Key input detection	0	0.7~2.8Vdc when keyinputs are entered; 3.3Vdc when no key inputs are entered.	0.7~2.8Vdc when keyinputs are entered; 3.3Vdc when no key inputs are entered.	0.7~2.8Vdc when keyinputs are entered; 3.3Vdc when no key inputs are entered.	0.7~2.8Vdc when keyinputs are entered; 3.3Vdc when no key inputs are entered.	0	-	SW→MAIN
	2	CTL2	Key input detection	0	0.7~2.8Vdc when key inputs are entered; 3.3Vdc when no key inputsare entered.	0.7~2.8Vdc when key inputs are entered; 3.3Vdc when no key inputsare entered.	0.7~2.8Vdc when key inputs are entered; 3.3Vdc when no key inputsare entered.	0.7~2.8Vdc when key inputs are entered; 3.3Vdc when no key inputsare entered.	0	-	SW→MAIN
	3	GND	GND	0	0	0	0	0	0	-	-
PA	1	S+12	+12V power supply for audio circuits	0	12	12	0	0	0	-	POWER→AUDIO
	2	S+12	+12V power supply for audio circuits	0	12	12	0	0	0	-	POWER→AUDIO
	3	S+12	+12V power supply for audio circuits	0	12	12	0	0	0	-	POWER→AUDIO
	4	GND	GND	0	0	0	0	0	0	-	-
	5	GND	GND	0	0	0	0	0	0	-	-
	6	GND	GND	0	0	0	0	0	0	-	-
PD	1	ALARM	PDP alarm signal	0	5Vdc when the PDP is normal; 0V when it is abnormal.	5Vdc when the PDP is normal; 0V when it is abnormal.	0	0	0	-	PDP→POWER
	2	D.GND	GND	0	0	0	0	0	0	-	-
	3	D.GND	GND	0	0	0	0	0	0	- -	-
	4	D.GND	GND	0	0	0	0	0	0	-	-
	5	D.GND	GND	0	0	0	0	0	0	-	-
	6	D+60	Vd power supply for PDP	0	60Vdc(changeable according to the PDP)	60Vdc(changeable according to the PDP)	0	0	0	-	PDWER→PDP
	7	D+60		0	60Vdc(changeable according to the PDP)	60Vdc(changeable according to the PDP)	0	0	0	-	PDWER→PDP
	8	NC	digital circuits	-	-	-	-	-	-	-	-
	9	D+170	Vs power supply for PDP high-voltage circuits	0	170Vdc(changeable according to the PDP)	170Vdc(changeable according to the PDP)	0	0	0	-	PDWER→PDP
	10	D+170	Vs power supply for PDP high-voltage circuits	0	170Vdc(changeable according to the PDP)	170Vdc(changeable according to the PDP)	0	0	0	-	PDWER→PDP
PH	1	D+5	5V power supply for digital circuits	0	5.15	5.15	0	0	0	- -	PDWER→PDP
	2	D+5	5V power supply for digital circuits	0	5.15	5.15	0	0	0	- -	PDWER→PDP
	3	D.GND	GND	0	0	0	0	0	0	-	-
	4	D.GND	GND	0	0	0	0	0	0	-	-

BLOCK DIAGRAM



PDP-424MV/42MVE1 Series Blockdiagram of the control block

